# MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. 10. No. 5. WEEKLY. | BALTIMORE, SEPTEMBER 11, 1886. | $3.00 A YEAR. SINGLE COPIES, 10 CENTS.



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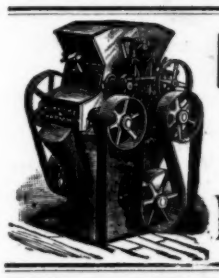

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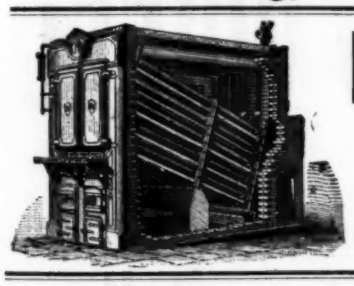

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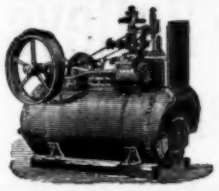

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Illustrated Engine Pamphlet Sent Free.

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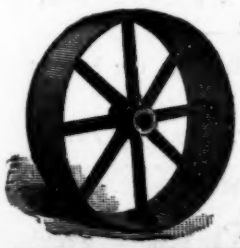

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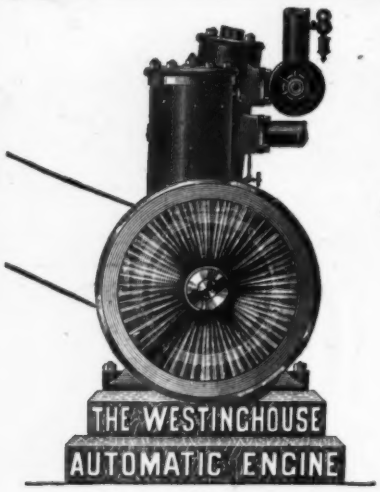


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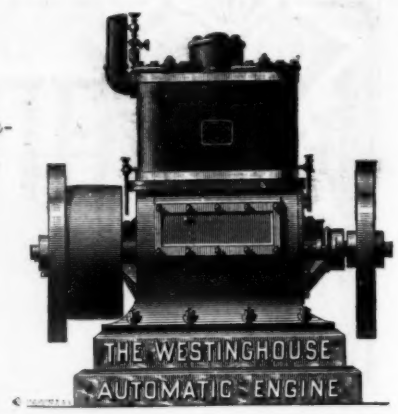


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# LEFFEL TURBINE WATER WHEEL,

Prices as Low as any other First-Class Wheel.

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Our plant for the production of MACHINE-MOULDED MILL GEARING is unequaled in the country, and we are prepared to fill orders with dispatch and at GREAT SAVING IN COST OF PATTERNS.

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SHAFTING, PULLEYS, HANGERS and COUPLINGS, of latest and most approved designs.

N. B.—Shipping facilities the best in all directions.

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Unequalled Facilities for Furnishing
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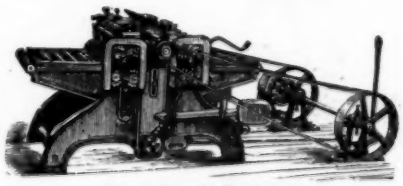
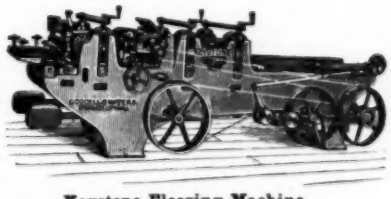
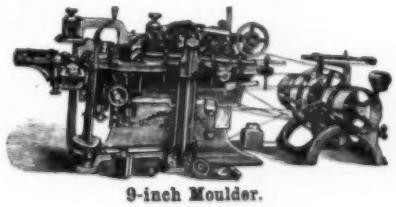
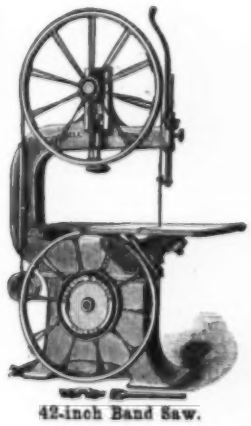

No. 2 Single Surfacer.


Keystone Flooring Machine,
Surfacing 100 lineal feet per minute.


9-inch Moulder.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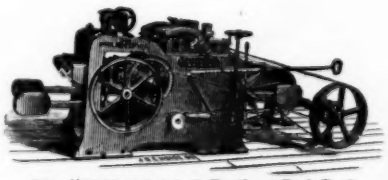
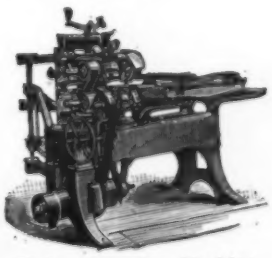
## "KEYSTONE" FLOORING MACHINE,


The "Philadelphia" Endless Bed D. S.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Of which over TWO HUNDRED have been sold during the past Two Years.

*Every Machine is thoroughly tested before leaving the Works.*

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*All our machines are warranted as represented.*

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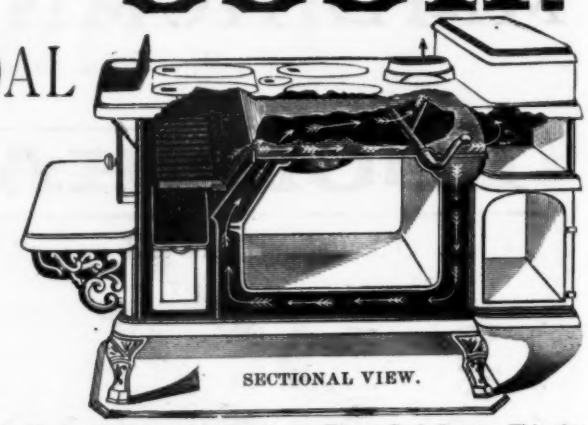

SECTIONAL VIEW.

Is in every particular a cooking stove of the first class. The proportions, size, style and finish are second to none. It is constructed with our Patent Oven Flues, which are far superior to the old return flue in general use. The Reservoir is of Nickeled Copper, with deep stamped pit, and is effectually heated without an extra damper. Side Shelves for the top can be put on when required. A cast Pan attached to a swing bracket under the hearth provides a neat receptacle for the covers when removed from the top of the stove.

The above print will illustrate the peculiar flue in our Climax Cook Stoves. This plan insures the even distribution of the heat to all parts of the oven. No other stove or range has this flue. Manufactured by

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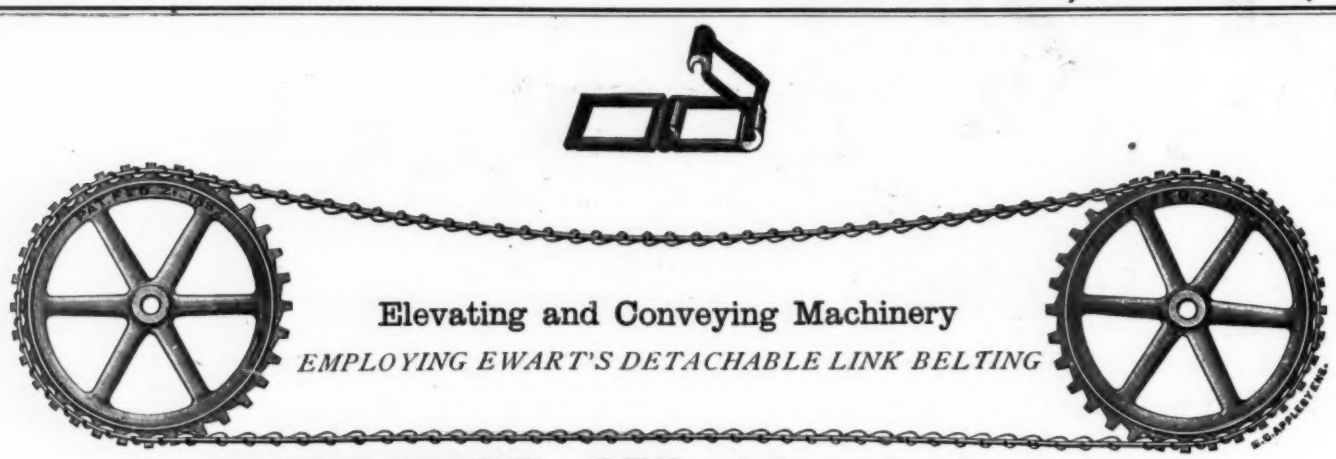

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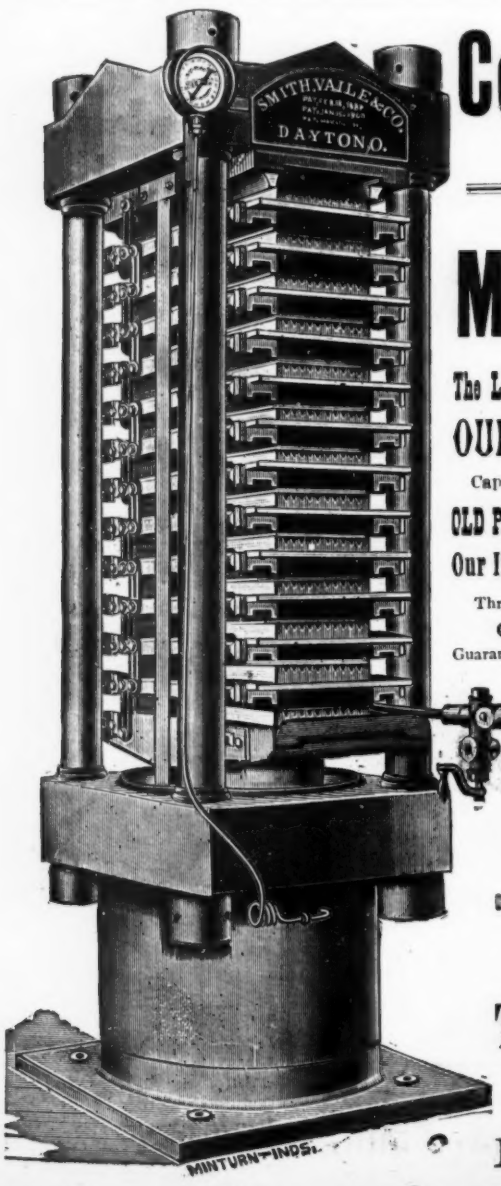


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**OUR NEW PRESS** WITH STEEL BOXES.

Capacity 15 Tons Cottonseed Per Day.

**OLD PRESSES** Changed to our new Steel boxes thus *doubling* their capacity.

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Three, Four or Five Rolls to a Stack, for

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☞ Send for our Catalogue of Hydraulic Presses, Heaters, Formers, Crusher Rolls and Pressure Pump.

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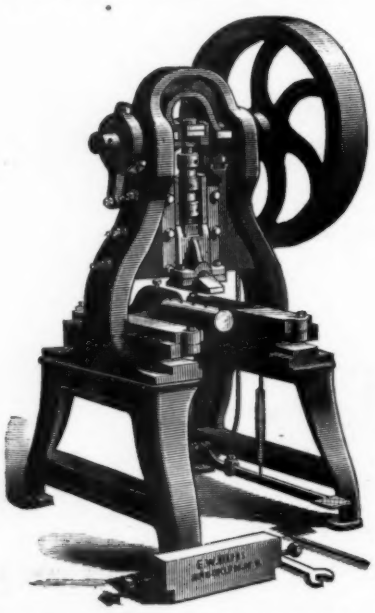

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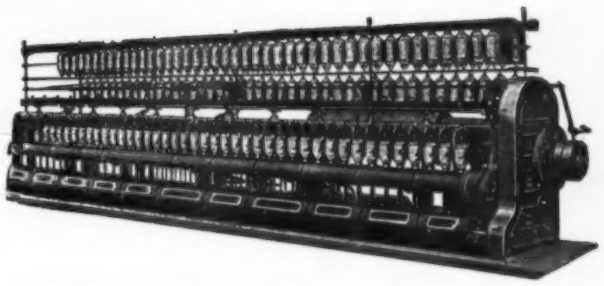

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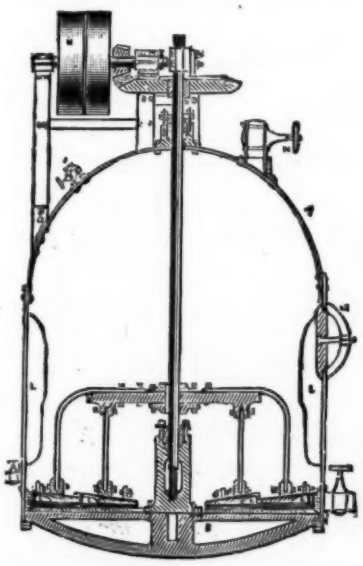

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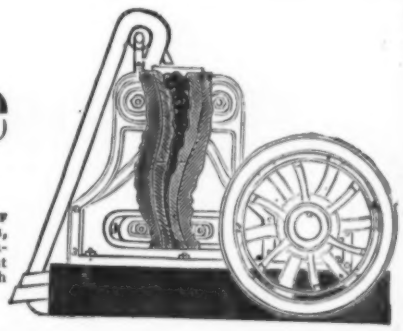
## Disintegrating Machine

**The Only Method for Preparing the Ore for Amalgamation.**

Disintegrating, Decomposing and Desulphurizing the ore under a HIGH TEMPERATURE and PRESSURE OF STEAM HEAT, with chemical action and attrition, dissolves and breaks up the chemical combination in the ores, individualizing, cleaning and separating the atoms of metal from the gangue, perfectly freeing them for amalgamation in combination with the MEECH AMALGAMATION MACHINE and process, (being the greatest combination of Amalgamation known,) will successfully extract 90 per cent. of the metal from rebellious ores, such as Sulphurets, Sulphates, Sulphides, Chlorides, Bromides, Oxides, Tellurides, &c.

☞ We desire business correspondents in every mining district in the United States.



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This Machine will **CRUSH AND PULVERIZE GOLD AND SILVER ORES** to 20, 40, and 60 mesh fine, and from 20, 40 and 60 tons **per day.** The **principles** of this machine, making it superior to all others, are the peculiar concave and convex shape of the jaws, with concave and convex projections, which breaks, crumbles, stamps and pulverizes the ore with less power, wear and tear, than any other machine. MANUFACTURED BY

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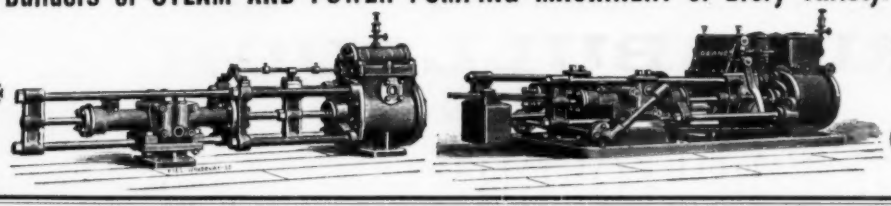
Builders of STEAM AND POWER PUMPING MACHINERY of Every Variety.

Hydraulic Pressure
**PUMPS**
A Specialty.
SINGLE OR DUPLEX PATTERN.



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Boston, New York,
Philadelphia,
Chicago, St. Louis.
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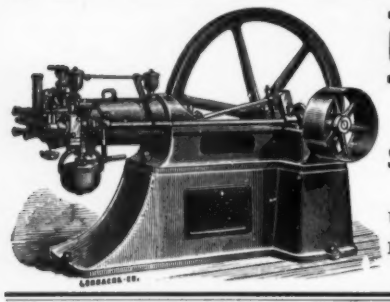

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Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by insurance companies. UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-Horse power.

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# DON'T USE OLD AND WORN-OUT MACHINERY

We Make THE BEST. Get it and make a Profit on Your Production.

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and NORWALK AIR COMPRESSOR

Are the Latest and most Improved Machines that were ever designed for the work required of them.

Boilers, Steam Pumps, Hoisting Engines, Electric Blasting Apparatus, Powder, Caps, Fuse, Steam and Air Hose, Wire Rope, And General Mining and Contractors' Supplies.

Complete Specifications for Rock Drilling, Quarrying and Mining Plants Furnished on Application.

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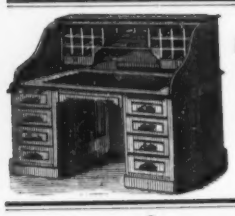

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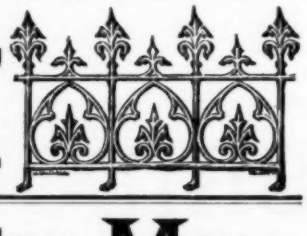
Iron Fence and Roof Cresting, Wrought Iron Fence, Builders' Wire and Iron Work, &c.



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Iron, Steel and Copper Wire, Wire Rope, Barbed Wire.

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BALTIMORE

**Manufacturers' Record.**

PUBLISHED EVERY SATURDAY BY THE

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BALTIMORE, SEPTEMBER 11, 1886.

## Birmingham Steel.

The practical solution of the Bessemer steel question in connection with Alabama appears to have been reached, as readers of the MANUFACTURERS' RECORD will conclude from the statements of our Birmingham correspondent, elsewhere printed. It is difficult to place too high an estimate upon the importance of this development. At present it looks very much as if it might prove to be a greater advantage to the Birmingham district than even the ability to manufacture pig iron capable of competition in Pittsburgh with the best iron of that center.

It has not been doubted, in well-informed circles, that the ores tributary to the Birmingham district were well enough adapted to steel-making by the Clapp Griffith process, probably, and the Basic certainly; but the fact that there are immense deposits of true Bessemer ores within a short haul of the Southern Pittsburgh, will be exciting news to a great many people connected with the Eastern and Northern iron and steel industries, who have hitherto regarded the assertions of our Birmingham correspondent, and others on that subject, as not many degrees better than advertising dodges in the interest of the Southern mineral regions.

The evidence is rather too strong to be waved aside in the way, until lately, the custom with our Northern friends. The preparations now being made to establish a steel industry at the new town of Bessemer, near Birmingham, and which include the purchase of 20,000 acres of Bessemer and manganese ores, the construction of nearly 50 miles of railway, the opening of large coal mines, the erection of two steel plants and the purchase of a 5,000 acre townsite—all these things are surely indicative of something more substantial than wind. There is no doubt on the subject at the place where doubts would be sure to exist if there were reason for them. While the *coup* with which Mr. de Bardeleben took in the Cartersville ore deposits, gained control of the transportation facilities, and re-inforced himself again, with a clean scoop of the Murphee's Valley ore territory, was a surprise to other Birmingham operators, not one of them thought of questioning the substantial nature of the movement, and it is safe to say that every furnace organization in the district has a corps of prospectors in the field to day, busily hunting for something with which to respond to the brilliant de Bardeleben play. Like pig iron, steel is going to the South to stay. We are assured, that Bessemer pig can be made profitably at Bessemer for ten dollars per ton. Should anything like that prove to be the case, the transfer of an important part of the American steel manufacture to Jones Velley, could only be the question of a short time. As we understand the matter, Mr. de Bardeleben promises to show that it can be done, within ten months from this time. It is unnecessary to add that his movements will be watched with anxiety by iron and steel producers both on this side and in Europe.

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THE vast wealth of minerals in Southwest Virginia is beginning to attract a large share of attention from capitalists, and, while Alabama and Tennessee are now the centers of the greatest activity in iron interests, Virginia with its equally as great advantages is soon destined to become the seat of much more extensive mining and iron making industries than ever before. The mineral wealth of Southwest Virginia is simply enormous, and in all probability it will not be many years before we see another Birmingham, not in name, but in being the center of immense iron industries, somewhere in Southwest Virginia. A dispatch from Pulaski county says that Northern and English capitalists and iron men are buying up mineral lands very freely, and that several narrow guage roads will be built immediately to connect with the Norfolk & Western Railroad at Pulaski Station.

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TWO weeks ago we called attention to the heavy imports of foreign iron ore at Baltimore, amounting, since January 1, to 274,000 tons. At Philadelphia the imports are likewise heavy, and upwards of 393,000 tons have been received there since the first of the year. At these two ports the importations since January 1 foot upon 667,000 tons, against about 250,000 tons for the whole country during the same time last year. In addition to the imports of ore, pig iron is also coming in freely, the imports into the country for the first seven months of the year being 218,290 tons against 84,509 last year.

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MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

## Number of Southern Manufactories.

In its review of Southern progress, published September 1, the New Orleans Times-Democrat gives the following statistics as to the number of manufacturing establishments in the South and the value of the product in 1885 as compared with 1879:

| State. | 1885. No. of est'b'shments. | 1885. Products. | 1879. No. of est'b'shments. | 1879. Products. |
|---|---|---|---|---|
| Alabama.... | 3,876 | $34,620,000 | 2,070 | $13,565,504 |
| Arkansas... | 2,659 | 13,870,000 | 1,202 | 6,756,159 |
| Florida..... | 1,004 | 9,026,000 | 426 | 5,546,480 |
| Georgia..... | 5,848 | 66,135,000 | 3,593 | 36,440,948 |
| Kentucky... | 6,660 | 95,430,000 | 5,328 | 75,483,377 |
| Louisiana... | 2,235 | 36,768,000 | 1,553 | 24,205,183 |
| Mississippi.. | 2,170 | 12,223,000 | 1,479 | 7,518,302 |
| N. Carolina. | 5,702 | 34,781,000 | 3,802 | 20.095,037 |
| S. Carolina.. | 3,228 | 34,220,000 | 2,078 | 16,738,000 |
| Tennessee... | 6,939 | 62,100,000 | 4,326 | 37,074,886 |
| Texas..... | 4,564 | 33,166,000 | 2,996 | 20,719,928 |
| Virginia..... | 6,534 | 73,543,000 | 5,712 | 51,780,990 |
| Total... | 51,419 | $505,892,000 | 34,563 | $313,924,794 |

In six years the number of establishments has increased 49 per cent.; the capital, 93 per cent.; number of hands, 63 per cent., and products, 60 per cent. As compared with 1870 the increase has been even greater:

| | No. establishments. | Capital. | Hands. | Products. |
|---|---|---|---|---|
| 1886... | *52,986 | $375,864,000 | 338,420 | $532,630,000 |
| 1870... | 31,524 | 158,132,133 | 156,908 | 236,452,444 |
| Inc'se. | 21,462 | $217,731,867 | 181,512 | $296,177,556 |
| Per ct. | 68 | 137 | 116 | 125 |

*Including sugar mills.

In the census of 1886 the sugar mills in Louisiana and Texas were included among the manufactories, but in 1880 their output was classed as agricultural products. They are included in the totals here in order to allow of a proper comparison. Here, again, the fall in prices affects the result; but without taking this into consideration, it will be seen that the South has in sixteen years advanced:

| | Per cent. |
|---|---|
| In the capital employed in manufactories | 137 |
| In the number of hands | 116 |
| In the product of its factories | 125 |
| While its population has increased | 49 |

## Railroad Building.

The predictions made in the early part of the year that railroad building would be very active during 1886 have been fully verified. During the first eight months of the year there were 3,475 miles of main track laid, which is 350 miles more than the amount of new road constructed during the whole of 1885. As the last four months of the year are the most active season for the actual work of track laying, it is estimated that fully as many miles will be constructed during that time as during the past eight months. This would give a total of new track laid in 1886 of about 7,000 miles, against 3,131 miles in 1885. The Railway Age, from which these figures are gathered, says that the two months since July 1 have added to our record 1,720 miles, which indicates an average of nearly 30 miles of new track for every working day. On 95 of the 163 lines embraced in this summary work is still in progress, while on a very large number of other lines on which grading has for some time been going on, tracklaying is about to commence.

The amount of new road constructed in the South from January 1 to September 1 was:

| | Miles. | | Miles. |
|---|---|---|---|
| Alabama | 9 | North Carolina | 35 |
| Arkansas | 25 | South Carolina | 82 |
| Florida | 225 | Tennessee | 10 |
| Georgia | 51 | Texas | 300 |
| Kentucky | 39 | Virginia | 23 |
| Louisiana | 9 | West Virginia | 13 |
| Maryland | 21 | | |
| Mississippi | 68 | Total | 910 |

Thus out of a total of 3,475 miles, the South has built nearly 1,000 miles. There was only one State—Kansas—in which the mileage of new road was greater than in Texas, and the same State was the only one in which a greater number of roads are under construction than in Florida. In Kansas track was being laid on 18 roads during the last eight months and in Florida on 11.

Discussing the activity in railroad construction, the Railway Age says: 'While the year is two-thirds gone, the four months remaining are those in which the harvest of the work of grading, blasting and bridge building, which has been going on in the first part of the year, is to a large extent reaped, and these four months will see nearly as many miles of track laid down as in the eight months preceding, if indeed their record does not surpass the total up to the present. An army of men, numbered by tens of thousands, is preparing the highway for the great engine of civilization all over the country, and tens of thousands of other men are finding active employment in manufacturing the locomotives, cars, rails and innumerable other material entering into the construction and operation of the railway; so that the great work of railway extension, now so actively going on, is furnishing work to scores of thousands and food to hundreds of thousands and disbursing into varied channels of industry many millions of money."

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THE growth of Birmingham is really one of the wonders of the age. Day after day adds to the long list of new industries springing up there. The Birmingham Chronicle in a late issue says:

"From the New York press we notice that a number of English manufacturers have arrived in that city on their way to Birmingham, attracted here by the world-wide fame of the place. And this is not all. The heads of three of the largest manufacturing enterprises in New England have written that they would be here in a few days to prospect, with a view to moving. Armour, the great Chicago meat man, is going to establish a branch house here, and we are to have, before next summer, a large grain elevator by a Western syndicate, which proposes to make this a grain distributing point."

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THE Griffin Cotton Manufacturing Co., of Griffin, Ga., report business as very satisfactory; and their annual report just made shows a net profit during their fiscal year of 8¾ per cent. Considering the fact that 12 or 18 months ago the financial outlook for this new mill was not very bright, this is a good showing.

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A DISPATCH from Durant, Miss., says that J. T. Rhyne, of that place, has obtained a patent for tanning leather by a new process without the use of bark. The method is said to be simple and cheap, and to make a durable, pliable and water proof leather.

# OUR BIRMINGHAM LETTER.

## Steel Making in Alabama—A Vast Enterprise Getting Under Way. More New Industries.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., Sept. 7, 1886.

The summer is gone, and the autumn sets in with every promise of pleasant things for Birmingham. Business of every kind is thriving, and the steady tide of prosperity it has been my weekly privilege to chronicle flows on without any sign of an ebb. The State manager of R. G. Dun & Co's agency, Mr. McKnight, assured me the other day that every business establishment with a capital of more than $1,000 in the neighborhood was making money. What with the city full of strangers, new railway work, new furnaces and other industrial enterprises, everything is still on the rush, just as it has been any time these three months. But I am inclined this week to spare my MANUFACTURERS' RECORD friends the envy incident to reading about the Birmingham real estate boom, and to ask their "attention for a few moments," as the parsons say, to a matter of quite as great importance.

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Time and again I have declared in these columns that the day of steel production in this district was near at hand. Our Eastern competitors have hardly conceded our ability to make Basic steel, although well aware that the average ores of Alabama do not present any particular difficulties. Not having any reason to wish us success as a steel manufacturing centre, they have depended upon the litigation surrounding the Basic patents, and to the kindly chapter of accidents generally, to defeat our efforts in that direction. But questionable as outside faith has been in our ability to establish some sort of steel industry, it is certain enough that the iron and steel people and press of the North and East have been honestly as well as totally incredulous about the possibility of producing Bessemer steel from ores in or tributary to the Birmingham district. When, several months ago in this journal, I predicted that we should be making Bessemer pig within two years, a rather distinguished authority in one of the Western States felt it his duty to write me a personal letter, in order to warn me that I was exposing myself to the risk of being classed with Ananias. With the sensational fate of that scriptural party before my eyes, I was careful to go over the evidence again, and, as a consequence, have stuck to my original belief and kept on reiterating the statements my kind correspondent objected to. I am glad now to have the ammunition with which to convince him and the remainder of mankind that a man is not necessarily mendacious because he happens to be the *avant courier* of new or unpleasant truths. Kubla Khan thought so, however, when Marco Polo told him about the frozen rivers that elephants could walk on.

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It would be hard to find anything connected with the development or glory of Birmingham that Mr. Henry F. de Bardeleben has not had a hand in, and as to a great many of the biggest and most successful, it has been a "lone hand." The Pratt mines, now turning out 2,500 tons of coal per day, and easily worth $5,000,000; the Alice and Mary Pratt furnaces, producing over 200 tons of pig per day; the Henry-Ellen mines, raising 700 tons; the Pratt saw mills, cutting 60,000 feet of dressed lumber every day, and controlling a large slice of our long-leaf pine district, and the late developments of the de Bardeleben syndicate at Bessemer and elsewhere, are all the creations of his nerve and genius. If the Bessemer steel possibility had first come to us through any instrumentality other than his own, I am inclined to believe that he would have thrown up life in disgust and retired to a nunnery. Being destined to appear in history as the father of the steel industry in this valley, he is as proud of the fact as if it were his first born

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I do not know how long ago it is since Mr. de Bardeleben got his original inkling of the presence of Bessemer steel at Cartersville, Georgia, but am pretty sure that it was not before the first of January last. Since that time a few of his friends have been waiting impatiently for his play to develop, and it has now with a vengeance. With his customary prudence, he appeared to be very busy buying corner lots in town, and the majority of his rivals in the field of large local operations supposed him to be bent on just nothing else; but all the time his henchmen were hard at work buying up choice territory in the Cartersville Bessemer ore and manganese region, and before anybody was the wiser, they had nearly all of it. Lest any evil-minded Eastern man or newspaper should sneer at these mineral resources and insinuate that they are no better than they should be, it is a truth of which anybody can have the evidence, on application to headquarters, that leading experts of Pennsylvania have examined the iron ore, have analyzed and tested it, and have declared it to be much like but better than the best Lake Superior product. Chemically it shows an average of 67@68 per cent. metallic iron, about 5 per cent. silica, and seven thousandths (.007) of one per cent. phosphorus. As to the manganese from Cartersville, it has been for some time in use at the Edgar Thomson steel works in Pittsburgh, and that fact ought to save it from derision.

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Cartersville is on the East and West Alabama railway, which line is built this way 110 miles to Broken Arrow. From the latter point Mr. de Bardeleben is extending the road 18 miles to his Henry-Ellen mines, thence 14 miles to Birmingham, and thence 12 miles to his new steel town of Bessemer. At Bessemer he is erecting two furnaces, each 75 feet high with 17 feet bosh, and together capable of producing 300 tons of Bessemer pig per diem. He is building a standard gauge coal road out into the neighboring coal field, a large area in which is owned by himself and associates, and he is offering large inducements to everybody in the iron and steel manufacture to come and locate with him. Bessemer occupies a 5,000 acre townsite about 11 or 12 miles south of Birmingham, and in the centre of most of our mining and other enterprises. A mining and furnace community of several thousand working people and their families is already on the ground. Bessemer will be the local market for the operatives at the Pittsburgh Pipe Works and Woodward furnaces, almost within the corporation, and really part of the town; and for those at the Sloss and Alice ore banks, and so on. The old town of Jonesboro is about a mile distant. One of the advantages possessed by the town will be its ability to offer cheap and pleasant ground for the homes of skilled workmen.

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A word about the new pipe works at Bessemer will be of interest. Messrs. William Smith & Sons, late of Pittsburgh, Pa., are putting up an extensive plant alongside of the Woodward furnaces. Although they will have two 100-ton cupolas in their establishment, as a general rule the 200 tons of metal which they propose to cast into iron pipe daily, will run directly from the Woodward furnaces into their molds. They will employ about 350 men, and expect to be shipping pipe within four months from the first of September instant. I am told that the concern will commence operations on a $5,000,000 pipe order for the city of San Francisco. Thus, one after another of our Pennsylvania friends are coming to the Mecca of industrial America!

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During the past week there has been a steady but a trifle less active movement in inside property, especially high-priced business property. What this end of the market has lost the suburban and outside manufacturing site interests have gained to a great extent. The Elyton Land Co. has been entirely out of the market in the absence of Dr. Caldwell, its president, at Crab Orchard. He believes in being his own salesman, and when he is away the selling business suspends in that office. But he was to return to-day, and, unless rumor is at fault, the current week is likely to develop the liveliest kind of a movement on the line of the new Elyton Land Co.'s Belt Railroad. The corporation owns a large area of land northwest of the city limits, and there is much private property in the vicinity that will be benefited by the construction of this important and needed road. The de Bardeleben movements on the other hand are tending to encourage movement in property in the southern end of and south of the city. The two new street car lines, one dummy and one donkey, so to say, that are pushing out over Fountain Heights and on to Coketon and New Pittsburgh,—the latter Mr. Sam. Thomas' furnace settlement, are booming property on that side of Birmingham. The South Highlands hold their own, of course.

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Interior movements of industry are noteworthy. Ground is growing so in value near the business centre of the city and is in such demand for costly improvements, that many manufacturing establishments are being driven to seek quarters in the suburbs. The proprietors of the Hardie Iron Works have, it is said, determined to pull down their plant and carry it farther out. It is believed that a sale of their present site would net them not less than $200,000. If such a thing were possible the land included in the furnace site of the Sloss Furnace Co. ought to be marketed at something like half a million. Boland's foundry and machine shops is moving from down town to a site adjoining that of the Louisville Stove Works, and I am informed that the Linn Iron Works are about to be transferred to the western side of the town. About the Sloss and Mary Pratt furnaces, and for some distances above them on the lines of the Louisville & Nashville, and A. G. S. roads will be the manufacturing district of the near future as appearances go now.

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Although the local iron market has been remarkably strong during the week, I am unable to quote any advance beyond that reported in my latest previous letter. Furnace men are even more conservative than they were a week ago. Stocks are low, and probably do not amount to more than 3,500 tons for the whole district. The demand from all Western markets reached by our product is active and pressing, and the Eastern demand is better than satisfactory; but, in view of a belief that prices are to advance during the autumn months, our pigs are being sent to market in a very close way. All the time the Southern and state demand for Birmingham pig metal is increasing at a rate that might be viewed as phenomenal, were it not for the fact that Southern prosperity, and the consequent ability of the people to absorb manufactures of iron, are also increasing in a manner truly astonishing. Outside iron lines are active. The pipe works, bridge works and chain works, have their several capacities contracted for months ahead. This is true also of the machinery works, and, if I am not mistaken of the rolling mills as well. I do not know of any industrial establishment in Birmingham that is not trying to do more business than the proprietors really care to handle with present facilities. Still, as prices are good, and customers urgent, it is not strange that everybody should be overloaded with orders.

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It has just leaked out that Mr. de Bardeleben has scooped in all the ore lands, not hitherto taken, in Murphee's Valley above Birmingham. This purchase will amount to perhaps 10,000 or 12,000 acres. He had previously absorbed all the remaining ore territory around Trussville. It is needless to remark that these operations have skinned the market bare of iron ore property.

G. B. WEST.

# Progressive Raleigh.

## The Growth of North Carolina's Capital.

[Special correspondence MANUFACTURERS' RECORD.]

RALEIGH, N. C., September 2, 1886.

The tide of progress which is sweeping along so persistently throughout the length and breadth of the South has caught in its current this ancient city, the capital of the old North State.

I say ancient, because until comparatively recently her people were governed by old fogy views and primitive ideas. They were willing to let well enough alone and take things as they came. Now, however, one sees all around that activity and energy among her citizens, and particularly among her business men, which mark a new era and show a waking up to the times and their requirements, which argues well for her future prosperity. A jaunt around the city will discover to the observant visitor pleasing evidences of a more than gradual development of industries, and he will soon be satisfied that a determination exists in the minds of those who have their city's welfare at heart to make her a great manufacturing and industrial center. Already one notes factories of various kinds employing large numbers of hands in their varied avocations. New ideas are being brought out and new schemes devised, all looking to a building up of the city's interests, and placing her where she justly belongs, high up in the scale of progressive activities and intelligent development. Raleigh has a population of 16,000, as shown by the last census. Her business interests are for the most part in the hands of young men, who are not swayed by overweening conservatism. They see that as the city grows in size, just so much the greater are her requirements and necessities, and they seem to be doing all in their power to foster new enterprises and give an impetus to trade by making their city attractive and offering inducements to emigration, not of skilled labor only, but of loose capital, which may be advantageously employed, not only in the city, but throughout the State. Among the local industries I mark a deep and growing interest in the manufacture and sale of tobacco. Asheville is being looked at with jealous eye by Raleigh, and it is hinted that even Durham will have to look to her laurels in this particular, which at no very distant day may be wrested from her.(?) There is already one large factory and three warehouses for the sale of leaf of fine proportions and conveniences for handling the staple. The tobaccos are bright and of good grades, commanding high prices. Then there is the Raleigh Oil Mill & Fertilizer Co., which employs about 30 hands in the manufacture of a standard oil from cotton seed, which is recognized as one of the best brands on the market. The seed are used also in the manufacture of a fertilizer, and so great is the demand for this product that the company is erecting a large factory, 45x 150 feet, to enable them to meet the wants of the trade. About 60 tons of cotton seed are used per day. The oil is sold in the North, while the fertilizer has a home market. W. G. Upchurch, Esq., is president, and J. S. Price, secretary and general manager. The machinery of the works is first class, and was built by the Smith & Vaile Co.,

of Dayton, Ohio. The Pioneer Manufacturing Co. is another very important industry. New machinery is now being put up for extending the business, which is the manufacture of bobbins and spools. About 40 hands are employed, and the markets for the wares are general. There is also under the same management the North Carolina Phosphate Co., employing 45 hands, which manufactures a very superior article of fertilizer, using the Frisbee-Lucop Mill. Messrs. Ellington, Royster & Co. are builders and contractors, and have the largest door and sash factory in the State. They make sash, doors, in and outside blinds, scroll work, and everything that is used in the builders' wood-work line. When in full force they employ about 100 hands. Their work is guaranteed as first-class in every respect, and from their facilities and advantages in handling material in their newly-equipped factory can compete below the lowest in prices and quality of work. The factory is 82x182 feet, fire-proof, with iron roof, having within it 33 machines of the latest and best patents, and with a dry kiln, capacity of 3,000 feet of pipe, can thoroughly dry 20,000 feet of lumber per week.

Messrs. Allen & Cram are machinists and founders. They make small engines and boilers, cotton presses, grist and saw mills, and do a general millwright business. They construct also a clay grinding machine, for which they hold the patent, and have put them up in several towns in North Carolina and in Richmond, Va. Jno. H. Gill, Esq., who is also a machinist and founder, makes car wheels and elevators for stores and tobacco factories, and tobacco screws, also cotton planters and cotton presses, plows and other agricultural implements, builds engines, employing about 20 hands, and sells throughout the State within a radius of 100 miles. There is the Raleigh Ice Factory, with a capacity of 18 tons per day, by the Linde process; employs nine hands. This same company has a factory at Danville of 12 tons capacity, and one at New Orleans of 100 tons capacity per day. Other industries, which time and space forbid my describing in detail, are the North Carolina Car Company, a furniture, a silk and a knitting factory, all under full headway and doing a good business. A company has been formed to establish a city railway service, which is much needed now, and will be more so as the city enlarges her area. Contracts are about being put out, if not already in hand, for the erection of suitable water works in the city. There have been many meetings to determine as to the plan, but that has been all arranged, and a system defined which promises an adequate supply of water. These are natural signs of progress. The streets throughout are lighted by electricity. There is an opening here for a soap factory, which could do a large business. Abundant material is at hand to use in the manufacture, which can be procured from the various slaughter houses, while the rosin can be obtained at the price of the freight to Northern factories. With it might be combined a glue factory also, and there is no reason to doubt that a large business can be done in these commodities in Raleigh and the surrounding country.

The State of North Carolina, by her peculiar geographical position, lying entirely within the temperate zone, has a climate unexcelled by any in the world. She is subject neither to the extreme cold of the Northern States nor the torrid heat and malarial influences of the States south of her. Her land is fertile, easily cultivated and well watered by numerous rivers which traverse her, while her inexhaustible timber resources are such as to offer the greatest inducements to those who would feel inclined to avail themselves of them. The earth is stored with coal, iron, gold and other metals, ores and minerals. Of the timber the white oak is abundant, and is fonnd from the coast to the mountains. It is valuable for all purposes, for houses, mills, shipbuilding and for any and everything where strength and durability are required; the white hickory for handspikes, spokes, rims and handles; the white ash for light vehicles, and pulleys, oars and other naval implements; the elm for wagon hubs; the maple for furniture; the persimmon for screws of all kinds; the cypress for shingles and a paper pulp for newspaper; the black walnut for fine furniture, house and ship building and a thousand other uses; the pine, the prince of trees, from which is obtained in regular order crude turpentine, spirits turpentine, rosin, tar, wood spirits or alcohol, pinoleum, creosote, heavy oil of tar, oil from the pine tag, distilled pine sap, the long pine tag carded into fibre, crimped whole for upholstery, carded and spun for carpeting, made into wadding for dressing wounds, and lastly, the timber for fuel and charcoal. To think what may be produced from one kind of tree is simply astounding, but I have seen all the different products mentioned above. All these facts should tell what a grand old State North Carolina is and what her future is bound to be. If the men of the State would give as much time to internal improvements, industrial developments and progressive activities as they do to State and municipal politics, North Carolina would become the richest State in the Union.

One of the most important departments in the State, and which is doing the greatest possible amount of good in the way of showing up the resources of the old Commonwealth, is the Agricultural Department. Its museum is filled with samples of various State products, agricultural, mineral, botanical, &c. There is a first-class industrial laboratory, the finest in the South, complete with electricity, gas, water, heat, compressed air, filter pumps, and all the paraphernalia of perfect equipment. Connected with it is an experimental farm where plants of all kinds are grown, and the process of growth marked scientifically. In the chemical department lands are analyzed to ascertain what peculiar fertilizing properties they need; in fact, everything is done to enhance agriculture by scientific experiment and practical teaching. The Agricultural Experiment Station is in charge of Dr. Chas. W. Dabney, Jr., with a corps of able assistants. Next to this department may be noted the Department of Immigration, in charge of J. T. Patrick, Esq., commissioner. The work of this department is to bring into the State, by a judicious advertising of her resources and advantages, not only labor, but interested capitalists who will be induced, if possible, to make their homes in the State. Already great good has been done, and many of this very important class of "immigrants" from different parts of the North and Northwest have settled in North Carolina, and are helping to build up her interests. It cannot fail to be of immense advantage to the State. A manual labor school will soon go into operation, wherein not only the poorer classes will be taught, but the scions of the old aristocracy will be enabled to pull off their coats and learn something of the dignity of labor.

Before I stop I must mention the public buildings. There is the capitol, a staunch, sublime structure—a relic of the olden time, grand and dignified; it is in the center of a large square in which are trees and flowers, which add to the beauty of its surroundings; the post-office, a stately granite building erected in Uncle Sam's usually solid manner; the court-house, occupied by the State, city and county courts, a massive brick building of imposing appearance. There are handsome churches of the various denominations, &c., &c. Two hotels are all that Raleigh can boast of, the chief of which is the Yarboro House, mine host R. B. Raney, Esq., proprietor. It is replete with all modern conveniences, and for cleanliness and comfort cannot be surpassed. The cuisine is all that can be desired and well served, while the attention of the servants is equal to that of the best hostelries of the country.

W. M. P.

## Iron Importations and The Tariff.

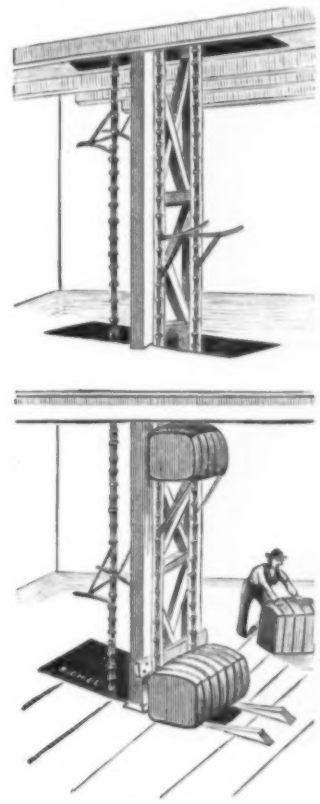
In commenting on the statistics lately published in the Baltimore Journal of Commerce, as to the large importations of iron and iron ore at this port, the Valley Virginian, of Staunton, says: There is a very suggestive lesson in the above statement taken from the Baltimore Journal of Commerce, August 28, 1886. The increase in the importation of pig iron and of iron ores shows that, notwithstanding the tariff of $6 a ton on pig iron and of 75 cents on iron ores, the European product is coming in at a rapid rate, displacing that much of the American product of both articles. There is not a pound of this iron or of this ore brought from foreign countries which could not have been produced in this country, and to that extent benefited American labor, and assisted in developing and utilizing American minerals. Had the original Morrison tariff bill been adopted our ports would have been open for the free ingress of the cheap labor ores of Cuba, Algiers and Spain, and the entire mining interests of this country destroyed. As the customs law now is, we see that the foreign product is invading our market, and that, to accomodate the importation, iron and steel plants are being erected near the coast to avoid inland transportation. These ores and this iron are shipped at the lowest possible cost of transportation, and, in many instances, as ballast, to compensate for our tariff charges, and thus, even under the present laws, we are threatened with an inundation of foreign products. We ask the intelligent people of Virginia to look at this matter in the light of self and State interests, and to determine for themselves whether they can afford to support a party which supports a policy that would be ruinous to the material welfare of the Commonwealth? Virginia abounds in all the essential material for the manufacture of steel. We have the best of iron and steel ores; we have unlimited deposits of manganese and coals, and labor that can be had for living prices. But we cannot compete with the cheap labor of England and Spain and Cuba, and, unless the legislation of the nation is shaped to protect the industries and labor of this country, all the industries connected with the iron and steel business must collapse. Under the Morrison bill, as originally introduced, the furnaces in this district, now employing largely over a thousand hands, furnishing a local market for the farmer and truckman, and paying out more than a million dollars a year, would speedidly blow out, and desolation reign where now are thrift and comfort and growth and prosperity. This is a matter which comes directly home to every citizen. It affects the farmer, the merchant, the mechanic, the laborer and every ramification of trade and enterprise.

It is possible to manufacture iron on the sea coast out of foreign ores, mined by convict labor and brought in as ballast, and make a profit on it at present prices, but when it comes to the interior sections, such as the localities where the minerals are found in this State and in this Congressional district, it would be impossible to find a market for either the ores or the metals at remunerative prices. It is a vital question for the people of Virginia to consider and they ought to consider it, independent and in defiance of party names and partisan influence, for their welfare is involved in it.

IT is reported in Southwest Virginia that Mr. Robert Garrett, president of the Baltimore & Ohio Railroad, has perfected financial arrangements in Europe for the construction of the Valley Railroad south to Salem, Birmingham, Ala., and other points to Pensacola, Fla. This information agrees very closely with the letter of our Birmingham correspondent, published a few weeks ago.

## Bale and Package Elevator.

The Bale and Package Elevator, a cut of which is shown herewith, is one of the many appliances to which roller chain is specially adapted. It consists of a double line of chain, with projecting arms at intervals, upon which the bale or other material, as the case may be, is carried. These projecting arms are made to suit the material to be elevated, so that such material as barrels,



BALE AND PACKAGE ELEVATOR.

kegs, sacks, carpets, matting, rolls of oi cloth, &c., are easily handled. The load is picked up automatically and delivered to the upper parts of the building quickly and at little expense.

It will be readily seen that there is an important saving by this method of elevating. The Roller Chain Belting Co., of Columbus, Ohio, are manufacturers of this class of machinery, and they will furnish any particulars desired.

FROM every section of Alabama comes the cheering news of improvements and progress. "Here we rest," is changed to "Here we move," and beyond doubt the latter motto is being enforced to the letter. The city of Birmingham is growing as no city ever did before, and everything in and about that growth is solid and substantial. Montgomery, the beautiful capital of Alabama, is flourishing like a "green bay tree;" real estate has trebled in value within the past tree years, its commerce has expanded in proportion, new houses and new industries spring up as if by magic; even her men of wealth have shaken off their Rip Van Winkleism, "taken off their coats, rolled up their sleeves," and put their shoulders to the wheels of progress. As a result, a railroad is being built to Florida, and one or more steamers are now utilized in navigating the Alabama river. Selma, the handsome Central City, has awakened from its long lethargy and is making great improvements. Huntsville, the most charming city in North Alabama, gives evident signs of progress, and the young town of Sheffield is building furnaces and a railroad. The older towns, Opelika, Eufaula, Union Springs, Decatur, Florence, Tuscumbia, &c., &c., are stirring up and working vigorously to advance their home interests. Calera, a little station on what used to be called the Selma, Rome & Dalton Railroad, is growing to be a town of immense proportions. Verily, Alabama is moving ahead, onwards and upwards; long may she continue so is our ardent wish.—Blount county (Ala.) News.

# CONSTRUCTION DEPARTMENT.

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

ALABAMA.

H. F. de Bardeleben will erect a $10,000 building at Birmingham, Ala.

The Capital City Street Railway Co., Montgomery, Ala., previously reported as deciding to run all their cars by electricity, will erect a two-story brick building, 70x100 feet, for their plant. They are negotiating for two 150-horse-power engines and rails for three miles of additional track.

The Florence, St. Joseph & Tennessee Railroad, capital stock $300,000, has been incorporated in Alabama by Emmet O'Neal, S. Kirkman and others.

The Huntsville Cotton Mill Co., Huntsville, Ala., reported last week as to double the capacity of their mills, will increase their capital stock $50,000.

M. L. Davis, of Pensacola, Fla., will build 8 miles of logging railroad, near Mobile, Ala.

It is stated that the Acid Iron Earth Co., Mobile, Ala., will double the output of their mines.

Hubbard Bros., Mobile, Ala., will improve and enlarge their lumber mill.

The capacity of the William Allen Barrel Factory, near Mobile, Ala., has been increased.

Oliver Caldwell, Mobile, Ala., has received the contract to build a hall at Tuscaloosa, Ala., for the University of Alabama, to cost $22,225.

The Pollard Mill Co. are building a new lumber mill at Pollard, Ala., at a cost of $10,000.

J. H. Lawson has put some new machinery in his saw mill near Talladega, Ala.

The Erie Manufacturing Co., Erie, Pa., previously reported as negotiating for the removal of their wooden-ware factory to Brewton, Ala., will, it is said, move them and operate them in connection with Blacksher Bros. lumber mill.

Graber & Sons, Athens, Ala., are purchasing machinery for a large new saw mill. They will also erect a grist mill soon.

The Woodward Iron Co., Wheeling, Ala., in connection with Pittsburgh capitalists, are preparing to erect extensive pipe works with a daily capacity of 200 tons, near their furnace. The machinery is being purchased and work will be commenced in a few days. 400 men will be employed at the start.

A three-story brick building, 30x182 feet, will be erected at Birmingham, Ala., by M. H. Jordan and W. A. Walker.

ARKANSAS.

An $8,000 flour mill is reported to be built at Lonoke, Ark.

Griggsby Bros. have the contract to grade the part of the branch of the St. Louis, Arkansas & Texas Railroad, previously reported, between Mount Pleasant and Sulphur Springs.

The B. F. Smith Smelting & Mining Co. has been organized at Hot Springs, Ark. The company will erect a 120-ton smelter in Montgomery county.

W. F. Hill, Little Rock, Ark., will receive until October 10, bids for the erection of the court-house, previously reported to be built.

George F. Birckenmayer, Evansville, Ind., has been in Rector, Ark., prospecting with a view to erecting a furniture factory.

FLORIDA.

P. H. Evans will erect a steam laundry at St. Augustine, Fla.

The Orlando Street Railroad Co., Orlando, Fla., previously reported, have ordered rails for 1½ miles of road, which they will build at once.

De Land, Fla., is negotiating for the building of water works. The cost will be about $40,000.

A tannery has been started at Myers, Fla., by Welch & Co.

W. H. Gregory, Key West, Fla., will build a new cigar factory in the place of the one recently wrecked.

GEORGIA.

A saw mill has been erected at Double Branches, Ga., by Tyler & Moore.

McDonough & Co., previously reported as erecting a lumber mill near Patterson, Ga., have completed a saw mill and will add a planing mill.

The Griffin Manufacturing Co., Griffin, Ga., are adding 32 check looms and 800 spindles to their cotton mill.

The Bibb Manufacturing Co., Macon, Ga., have, it is reported, contracted for machinery for an electric light plant to be erected in their gingham mills.

A stock company has been organized at Cedartown, Ga., to build a compress.

A Philadelphia company will build a hotel at Okahumpka, Ga. R. H. Ramsay, 207 East Chelten avenue, Philadelphia, is general manager.

The report last week that C. L. Loyd, Atlanta, Ga., will add the manufacturing of cigarettes to his tobacco factory is incorrect.

A fine three-story brick building will be erected at Rome, Ga., by the Rome Hardware Co.

It is reported that a stock company is being formed at Brunswick, Ga., to manufacture lumber.

W. S. Hawkins, Savannah, Ga., will rebuild his planing mill, reported last week as burned, loss $7,000, at his saw mill in the country.

KENTUCKY.

Messrs. Pell, Lewisport, Ky., will erect a two-story building, 25x100 feet, with an iron front.

K. J. Ensminger, Crofton, Ky., has purchased a complete outfit of machinery for a roller flour mill.

It is stated that the flour mill of E. S. Vance, Franklin, Ky., has been refitted with roller machinery.

Carroll & Neely, Russellville, Ky., have contracted for roller machinery for a 75-barrel flour mill.

Leak & Smith, Franklin, Ky., are putting roller machinery in their flour mill.

Machinery for a 75-barrel roller flour mill has been purchased by W. G. Proctor, Danville, Ky.

The Clark-Warder Co., Glasgow, Ky., previously reported as incorporated to do a milling business, have contracted for machinery for a roller flour mill with a daily capacity of 100 barrels.

A company with a capital stock of $50,000 has been organized to build a railroad from Madisonville to Clayville, Ky., with S. R. Knott, Lee Howell, W. J. Wood and others as directors.

Edwards & Edwards have erected a roller flour mill at Gordonsville, Ky.

LOUISIANA.

Haubtman & Edwards have received the contract for the brass and sheet iron work and piping for the additional brewery previously reported to be erected by the Southern Brewing Co., New Orleans, La.

L. J. Fleury & Co., New Orleans, La., previously reported as purchasing a site for a furniture factory, have completed their factory and put it in operation.

Seidel Bros., New Orleans, La, are purchasing additional machinery for their furniture factory.

The Orleans Manufacturing Co., capital stock $20,000, has been lately organized at New Orleans, La., to manufacture coffins and undertakers' supplies. They have established their factory at 115 and 117 Fulton street.

The New Orleans Boot & Shoe Factory, 110 Chartres street, New Orleans, La., contemplate putting steam power in their factory.

The Hope Rice Mill, New Orleans, La., will put in additional machinery to enlarge their capacity.

The Planters' Crescent Oil Co., New Orleans, La., are improving and enlarging their mill and building a warehouse.

A shingle mill will be erected at Atchafalaya, La., by Walker & Mercer, of that place, and Mr. Bemiss, of Beaumont, Texas.

MARYLAND.

M. Ring will erect a five-story warehouse at 322 West Baltimore street, Baltimore.

Mentzel & Sons, Baltimore, whose paper mill at Union, Md., is reported in this issue as burned, will rebuild, but have not decided at what place.

The Annapolis Water Co., Annapolis, Md., have let the contract to build the new reservoir, reported last week, to Conway & Bates, of Baltimore.

The furniture factory of Margaretha Beck, Baltimore, reported last week as burned, loss $20,000, will be rebuilt at once.

Fales, Oudesluy & Co., Baltimore, are putting a new 35-horse-power engine and boiler in their hat factory, corner Eutaw and King streets.

MISSISSIPPI.

There are prospects of a cotton factory being erected at Jackson, Miss.

A company is being formed at Holly Springs, Miss., to build a cotton compress, by J. C. Clarke, president Illinois Central Railroad and others.

A. M. McGregory, lately reported as to start a plow factory at Mobile, Ala., will, with Mr. O. Guinn, start a factory at Moss Point, Miss.

Beck & Bro. have received the contract to erect two school buildings at Vicksburg, Miss.

The Rhyne's Paragon Process Tanning Co. has been organized at Durant, Miss., by J. T. Rhyne and others. They have secured a site for a tannery to be erected at once.

The capital stock of the Carpenter-Dicks Co., Natchez, Miss., lately reported as incorporated, with J. N. Carpenter as president, is $40,000. This is a reorganization of the Lee Oil Works.

NORTH CAROLINA.

Bostic Bros. & Wright, Shelby, N. C., will put additional machinery in their tobacco factory.

D. Stinson, New Berne N. C., contemplates adding new machinery to his planing mill.

The Standard Gold Mining Co., capital stock $100,000, has been incorporated at Oxford, N. C., by Edward Baum, W. A. Hoops and Wm. A. Middleton. The principal office is to be at Harrisburg, Va.

Gaskill & Holmes, Salisbury, N. C., have let the contract to build their new tobacco factory, previously reported, to Watson & Cecil, of Lexington, N. C.

D. A. Tompkins & Co., Charlotte, N. C., want to purchase a 3-foot gauge truck, with steam power, for hauling goods over about 2 miles of track.

Moffett, Hodgkins & Clark, Watertown N. Y., have contracted to build water works at Salisbury, N. C., to be completed by April 1, 1887.

E. M. Andrews will establish a mattress factory at Charlotte, N. C.

It is reported that a company with $500,000 capital has been organized at Wilmington, N. C., to carry on lumber manufacturing in North Carolina and Florida. W. P. Canaday, Washington, D. C., is said to be interested.

The capital stock of the St. Catherine Gold Mining Co., Charlotte, N. C., reported last week as incorporated to develop the St. Catherine Gold Mine, is $500,000.

T. B. Smith will erect an ice factory at Durham, N. C., and wants the address of manufacturers of ice machinery and fixtures.

G. L. Raymond is opening a gold mine at Charlotte, N. C.

SOUTH CAROLINA.

The Standard Manufacturing Co., Charleston, S. C., have recently enlarged their barrel factory.

TENNESSEE.

It is reported that the Willingham Lumber Co., Chattanooga, Tenn., will soon erect a large band saw mill.

T. A. & J. L. Hare are putting roller machinery in their flour mill at Alberton, Tenn.,

The Livermore Foundry & Machine Co., Memphis, Tenn., have recently enlarged their works.

The flour mill of J. H. Francis, Weaver's Store, Tenn., is being changed to a roller mill.

The Sequatchie Coal and Iron Co., recently reported as incorporated at Nashville, Tenn., by A. S. Colyar, Max Sax, William Morrow and others, to build iron furnaces, are making arrangements to build two 100-ton furnaces at South Pittsburgh, Tenn.

It is stated that the Southern Improvement Co. will build the French Broad Railroad from Unaka, N. C, to Knoxville, Tenn., recently reported as incorporated.

The Tennessee Coal, Iron & Railroad Co., Nashville, Tenn., previously reported as building another iron furnace at South Pittsburgh, are building 400 additional coke ovens and opening coal mines, with a capacity of 25,000 tons per month. The capacity of the furnace will be 150 tons per day.

A. D. Reynolds, Bristol, Tenn., has put an additional engine and other new machinery in his tobacco factory and is erecting a four-story storage building, 44x64 feet.

T. G. Montague, H. S. Chamberlain, George M. Sherwood, F. J. Stone and T. H. McCallie have incorporated at Chattanooga, Tenn., the Mission Ridge Street Railroad Co.

**LOCKWOOD, GREENE & CO.**

**MILL ENGINEERS**

**Office, 65 Westminster St., Providence, R. I.,**

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

H. C. Merritt, A. Howell and others will incorporate a company to build a railroad from Nashville, Tenn., to Hopkinsville, Ky.

A company, with a capital stock of $100,000, is being formed at Clarksville, Tenn., to manufacture tobacco.

The iron furnace of the Tennessee Coal, Iron & Railroad Co., at Cowan, Tenn., has been blown out for repairs.

A basket factory is being erected at Greenfield, Tenn.

The Tennessee Brewing Co., Memphis, Tenn., contemplate greatly enlarging their brewery.

TEXAS.

The Mexican Ore Co. have made a proposition to build a $300,000 smelting plant at San Antonio, Texas. It is said the proposition will be accepted.

John J. Guion, W. S. Davis, James R. Key, Arthur Lee, W. H. Lessing, William Vernon and George D. Nicholson have incorporated at Ballinger, Texas, the Ballinger Water Works Co., capital stock $30,000.

The Denison Street Railway Co., Denison, Texas, are negotiating for the running of their cars by electricity.

The Howard Oil Co., Houston, Texas, will rebuild at once their oil mill, reported last week as burned, loss $275,000.

An electric light company is reported as being organized at San Antonio, Texas.

The Jefferson Lumber Co., Jefferson, Texas, will build a railroad from Atlanta to Mount Pleasant.

It is stated that arrangements are being made to erect a large cotton mill at Denison, Texas.

Leon & H. Blum are rebuilding their mill at Forest, Texas, recently burned.

The Schulenberg Compress Co., capital stock $40,000, has been chartered at Schulenberg, Texas, with W. F. Upton as president; Charles Baumgarten, vice-president, and Charles E. Sanford, secretary.

The Fort Worth Transfer Co., Fort Worth, Texas, will build a $6,000 stable.

The Taylor & Bastrop Railroad Co. will double the capacity of their shops at Taylor, Texas, as soon as their road is completed.

The Gainesville, Henrietta & Western Railroad, previously reported as incorporated in Texas, has been organized with H. M. Hoxie as president; J. Herrin, vice-president, and D. S. H. Smith, secretary and treasurer. The contract to build the road has been let to Burkitt & Murphy, of Palestine, Texas.

VIRGINIA.

Messrs. Willis & Sanford will erect a smelting furnace at the Cash Tin mine in Rockbridge county, Va., to test the ore. It will cost $8,000.

J. H. Grayson, Snowville, Va., is improving his flour mill and putting in some new machinery.

Mr. Jones has contracted for the rebuilding of his mill at Buckingham, Va., destroyed last July.

I. Eugene White has received the contract to build a warehouse at Newport News, Va., for the Newport News & Mississippi Railroad Co.

WEST VIRGINIA.

Joseph J. Doran, W. C. Bullitt, W. M. George, Jr., W. A. Dick, H. G. McCough and Richard C. Dale, of Philadelphia, have chartered in West Virginia the West Virginia & Ohio Railroad Co., to extend the New River branch of the Norfolk & Western Railroad from Pocohontas, Va., to Charleston, W. Va. The principal office to be at Bramwell, W. Va.

H. G. Davis, G. W. Harrison, Henry G. Buxton and W. T. Blackiston, of Piedmont, W. Va., and T. B. Davis, of Keyser, have incorporated at Piedmont the Beaver Boom Co., to build and operate booms at and near Davis, W. Va.

J. C. Dayhoff, Hagerstown, Md., has received the contract to build a grain elevator at Martinsburg, W. Va., for the Cumberland Valley Railroad Co.

BURNED.

The machine shop of D. H. Wheeler, Prosperity, S. C.; loss $3,000.

The grist mill of D. Rickaby, near Mobile, Ala.; loss $1,200.

The factory of the Meridian Ice Co., Meridian, Miss., damaged $1,500 by an explosion.

The saw mill of Thorne & Coombs, Welaka, Fla.; loss $6,000.

The gin of John Jackson, near Albany, Ga.

A. M. Knight's saw and planing mill near Hawkinsville, Ga.; loss $5,000.

The paper box factory of J. H. Hartel, Baltimore.

The paper mill at Union, Md., owned by Mentzel & Sons, Baltimore. Will be rebuilt.

The flouring mill of Wm. Minor, Montezuma, Ga.; loss $8,000.

The mill and gin of the Buchel Milling and Ginning Co., Cuero Texas; loss about $25,000.

The saw mill of J. W. Price, Poulan, Ga.; loss $3 500.

The saw mill of J. Lawrence Jordan, Bowling Green, Va.

The gin of Archibald Nelson, Hickory Station, Ark.; loss $3,000.

## Developing Coal Property.

STEVENSON, ALA., August 31, 1886.
*Editor Manufacturers' Record:*

I have purchased 1,180 acres of coal land in Marion county, Tenn., 2½ miles from South Pittsburgh, and I have 6 veins of coal, 4 hard coal and 2 of good coking coal. One vein shows 66 inches. Am building quarters for miners and will open 3 veins at once. J. C. WALL.

## A Machine Shop.

HAMILTON, VA., Sept. 1, 1886.
*Editor Manufacturers' Record:*

Mr. H. L. Boteler and myself have started a machine shop in Hamilton.

S. J. THOMAS

OKAHUMPKA, GA., August 28, 1886.
*Editor Manufacturers' Record:*

A fine hotel with all modern improvements possible in a village is to be erected here this fall. R. H. Ramsey, 207 East Chelten avenue, Philadelphia, is the general manager. W. M. BENNETT.

MYERS, FLA., Sept. 1, 1886.
*Editor Manufacturers' Record:*

There has been a tannery started in Myers by Welsh & Co., of this place.

JAS. W. BAIN.

## Building Lumber Mill.

POLLARD, ALA., Sept. 1, 1886.
*Editor Manufacturers' Record:*

We are building a new mill for manufacturing lumber and timber; probable cost about $10,000. POLLARD MILL CO.

MOSS POINT, MISS., Sept. 1, 1886.
*Editor Manufacturers' Record:*

Messrs. O'Guinn & McGregor are now about starting a plow factory at this place.

H. C. VAUGHAN.

## Will Rebuild Furniture Factory.

BALTIMORE, Sept. 2, 1886.
*Editor Manufacturers' Record:*

I expect to build a four-story furniture factory, 32x160 feet, with all modern improvements as quick as possible.

MARGARETHA BECK.

## Will Build Grist Mill.

ATLANTA, GA., Sept. 4, 1886.
*Editor Manufacturers' Record:*

We have the lumber on our grounds now to build our grist mill.

A. A. DE LOACH & BRO.

## Three More Iron Furnaces for South Pittsburg.

NASHVILLE, TENN., August 30, 1886.
*Editor Manufacturers' Record:*

The blast furnaces that are to be started, as mentioned by me, are to be located at South Pittsburg, in this State. One by the Tennessee Coal, Iron and Railroad Co., which is now in progress of erection. This company now have two there in active operation, making about 250 tons daily. The other two furnaces are to be built by some bankers here, Messrs. Julius and Max Sax, in connection with Mr. James Woodward, president of the Hanover National Bank, New York. These furnaces will all be completed within the next six or eight months. South Pittsburg is a little city located by some English people, who located the first two blast furnaces at that point, and has, within the last year or two, grown up to a town of about 2,000 population. It is located on the Tennessee river and on the Nashville & Chattanoga & St. Louis R. R. The Memphis & Charleston will locate their road through this point during the next year. Many persons think that this little city will rival Birmingham within a few years.

W. M. DUNCAN.

## Builing Iron Furnace and Opening Coal Mines.

NASHVILLE, TENN., Sept. 1, 1886.
*Editor Manufacturers' Record:*

This company is now preparing to build, or are building, an additional furnace of 150 tons at South Pittsburg, and are opening on their property in the vicinity coal mines, with a capacity of 25,000 tons monthly output; and at the same place are building 400 additional coke ovens. A company composed of Nashville and New York parties also propose building (and are making all necessary arrangements) two furnaces, 100 tons each, at South Pittsburg. South Pittsburg is located on Tennessee River and on the "Jasper Branch" of Nashville & Chattanooga R. R. The Memphis & Charleston R. R. will be extended from Stevenson, Ala., to Chattanooga via South Pittsburg. When the government work on the Tennessee river is completed, say in 12 months, this river will be navigable at all seasons for the largest Mississippi river steamers.

TENNESSEE COAL, IRON AND R. R. CO.

## Erecting Machine Shop.

ATLANTA, GA., Sept. 1, 1886.
*Editor Manufacturers' Record:*

I am erecting a first-class machine shop, 100x35 feet, with a brick and stone basement, 60x33 feet. The shop will be equipped with the most modern tools to do general machine work. Have also purchased complete outfit to bore cylinders and valve ports, both Corliss and Wheelock, in present positions without removing them from bed. Will add a foundry in the spring. Have closed contract with the McKinley Engine Co., of Cincinnati, O., to build their engines, and hope to be ready to run by September 15th, employing about 12 hands. Have also an engineering office in the city ready to furnish estimates on steam plants for mills, cotton, woolen and saw. Outlook for business is fair. ERNEST C. BARTH.

## New Machinery.

BRISTOL, TENN., Sept. 4, 1886.
*Editor Manufacturers' Record:*

I have commenced the erection of a fireproof storage building, 64x44 feet, four stories, for my manufactured tobacco. I will cover the building with iron, with iron doors and windows. I have also purchased and put in operation an additional engine and other machinery. A million pounds will not supply my trade another year.

A. D. REYNOLDS.

## Doubling Rolling Mill.

ST. LOUIS, MO., Sept. 7, 1886.
*Editor Manufaccurers' Record:*

The addition of a large plate mill will fully double the capacity of our new plant at Louisville. It is now under way and will soon be started up. EWALD IRON CO.

## New Machinery.

GRIFFIN, GA., Sept. 4, 1886.
*Editor Manufacturers' Record:*

The Griffin Manufacturing Co. is adding to plant 800 spindles and 32 check looms at a cost of about $13,500. A part will be in by October 1st, and balance by December 1st. Will have 5,000 spindles and 160 looms. W. J. KINCAID, prest.

FOREST, TEXAS, September 1, 1886.
*Editor Manufacturers' Record:*

The mill and gin of this place belong to L. & H. Blum, of Galveston. The mill is now being rebuilt. I think the gin will be rebuilt soon. W. R. CROSBY.

LOUISVILLE, KY., Sept. 2, 1886.
*Editor Manufacturers' Record:*

We have bought a tobacco stemmery at Hopkinsville, Ky., and will enlarge it so as to double its capacity. The outlay for old building and improvements will be about $6,000. ROCKEE, GARTH & SCHRODER.

CAMP HILL, ALA., Sept. 1, 1886.
*Editor Manufacturers' Record:*

I am about completing work on my ginnery. The building is 32x44 feet, covered and sided with corrugated iron. I will run two 80-saw gins, one a Van Winkle and the other a Gullett Gin. W. T. LANGLEY.

## Will Rebuild Planing Mill.

SAVANNAH, GA., Sept. 3, 1886.
*Editor Manufacturers' Record:*

My planing mill, located here, was destroyed by fire. I will rebuild at once; that is, I will have my planing mill located at my saw mill in the country, and carry a full stock of rough and planed lumber here.

W. S. HAWKIN.

## Will Enlarge Ice Factory.

KNOXVILLE, TENN., August 31, 1886.
*Editor Manufacturers' Record:*

We contemplate erecting a 25-ton ice machine next winter, which will give us a capacity with our old machine of 40 tons every 24 hours. KNOXVILLE ICE CO.

## Machinery Wanted.

CHARLOTTE, N. C., Sept. 3, 1886.
*Editor Manufacturers' Record:*

We want a three-foot gauge truck with steam power on it to propel it, to haul goods from a factory over about two miles of track, and up a pretty stiff grade. Twelve miles per hour would be ample speed. Do any of your advertisers make anything of the kind? D. A. TOMPKINS & CO.

## Will Erect Ice Factory.

NASHVILLE, TENN., Sept. 3, 1886.
*Editor Manufacturers' Record:*

We have closed a contract with the Arctic Ice Machine Co., of Cleveland, O., for one their plants with a daily capacity of 30 tons.

W. H. HOWE & CO.

CHATTANOOGA, TENN., Sept. 6, 1886.
*Editor Manufacturers' Record:*

We have secured a charter to build a street railroad, 3 miles long, from foot of Mission Ridge to heart of Chattanooga Our design is to push it at once and build it at the earliest practicable day.

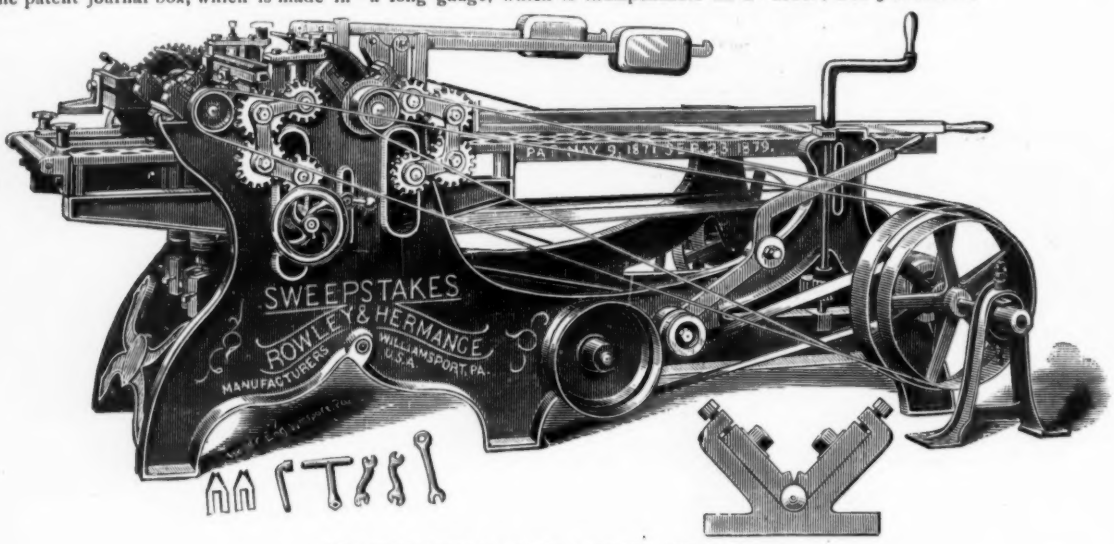
T. H. MCCALLIE.

[FOR OTHER LETTERS SEE PAGE 158.]

## The Sweepstakes Planer, Matcher and Moulder.

The accompanying illustration shows the Sweepstakes Planer, Matcher and Moulder, manufactured by Messrs. Rowley & Hermance, of Williamsport, Pa.

This is a very heavy machine and has the following very important improvements, viz: It is a new design, has solid forged steel head and steel matcher spindles, all running in the patent journal box, which is made in three parts, so that the journal can be kept central and tight until the box is worn out, thus preventing all tremble and jar of the shaft, which is very important where smooth work is required. It can be changed to a surfacer only, very quickly, simply by loosening two nuts, removing the heads, and the spindles will swing below the surface of the table. They can be swung back into position, ready for work, without measuring or changing. It has four 4½-inch feed rolls connected with expansion gear, making a very powerful feed. The feed works consist of cone feed pulleys, started or stopped with a belt tightener, and has two rates of feed, 32 ft. and 45 ft. per minute. There are two pressure bars, one in front and one in rear of surfacing head. It is also provided with chip breakers. The feed rolls are held down with levers bearing heavy weights, which can be adjusted to light or heavy work. The table is long, making room for a long gauge, which is indispensable on a good flooring machine. There is also an extra arbor passing across the width of the machine in rear of the matcher heads, on which there is a slotted steel head. On this head different shapes of knives can be placed for making rustic siding, beaded ceiling, mouldings, &c. Mouldings from 2½ inches to 5 inches wide can be made on this machine. The matcher heads are made of cast steel, run on heavy steel spindles, and are furnished with patent straight, solid milled matcher bits. There are over 900 of these machines in use, all giving, it is claimed, the best of satisfaction. The manufacturers say: "Our idea in building this machine was to furnish a strong, durable, well made and, in fact, the best planer and matcher for the price in the market." There is furnished with each machine one set (2) straight knives for top cylinder, one set (4) tongue and groove cutters for matcher heads, one set (2) rustic siding knives, and one set (2) beading knives for slotted head on extra arbor; also 5 wrenches.



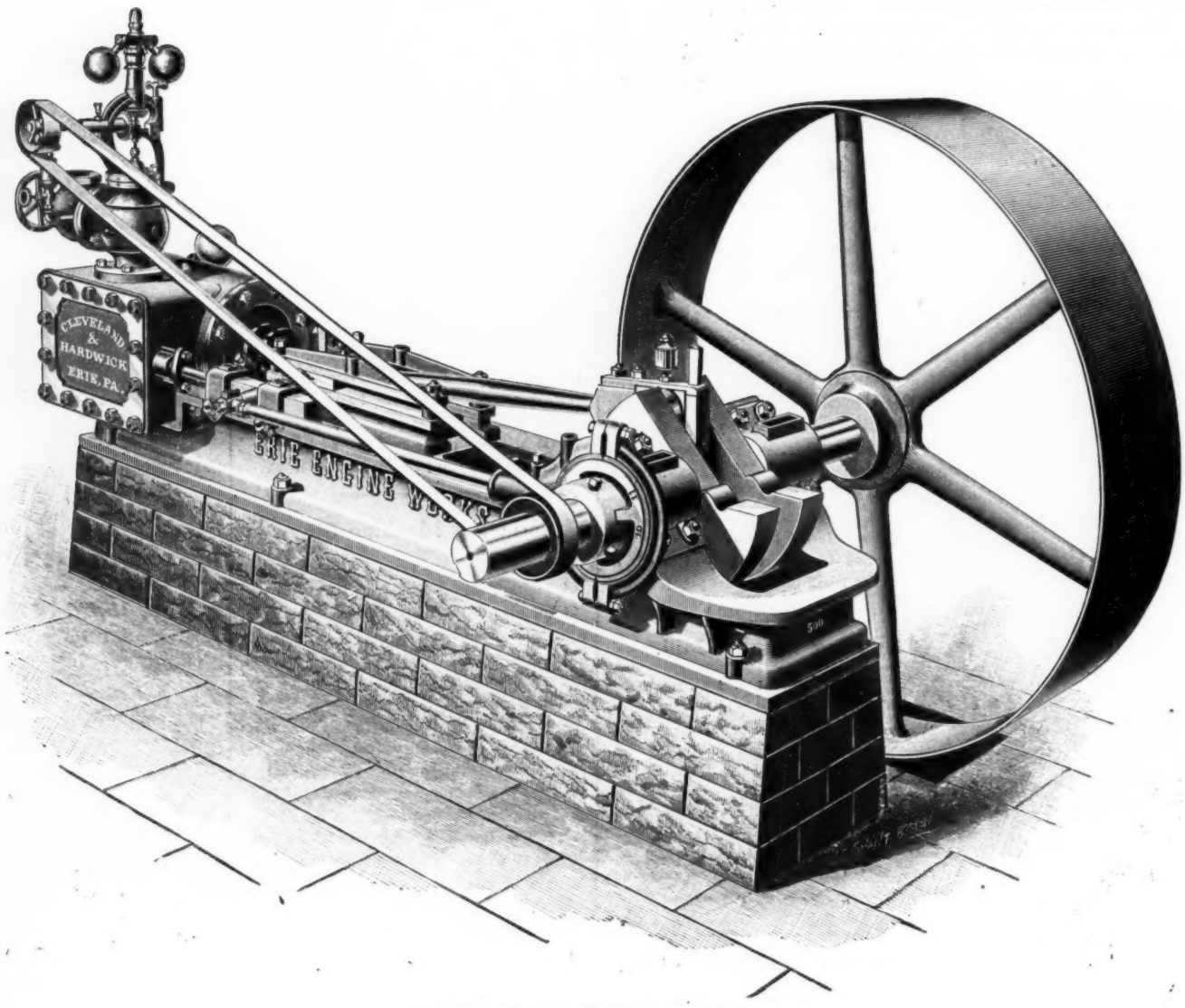

THE SWEEPSTAKES PLANER, MATCHER AND MOULDER.

## New Detached (Center Crank) Engine.

The accompanying engraving illustrates a new Detached or Center Crank Engine recently brought out by the Erie Engine Works, Erie, Pa. This engine may be connected to any style of boiler, and, in many localities, is prefered to the side crank or, more commonly called, stationary engine, as it is more easily set up and requires no extra foundation for out end bearing.

The cylinders are set low on the bed. The cranks are solid forgings slotted out, having no welds, and they are all balanced.

By the attachment of the reversing link the engine is well adapted for hoisting or other uses where frequent change of movement is required. Each engine is thoroughly tested under steam before leaving the works, and is guaranteed. These engines are made in sizes of 15, 20, 25, 30, 35, 40 and 45 horse-power, and are shipped complete with pump, heater, governor, belt, throttle valve and all necessary oil cups. Any further information can be had by addressing the manufacturers—Messrs. Cleveland & Hardwick, Erie, Pa.—who make a specialty of a complete line of engines and boilers for Southern trade. Their catalogue will be sent upon application.




NEW DETACHED OR CENTER CRANK ENGINE.

A LETTER received at Birmingham from Blount Springs, Ala., says about 15 miles from there petroleum is issuing in streams from a fissure in the rock made by the earthquake. It is represented that there have been a number of sight-seers to the place, who confirm the report of the phenomenon. The information comes here from thoroughly responsible sources.

☞ *Subscribe to the Manufacturers' Record.*

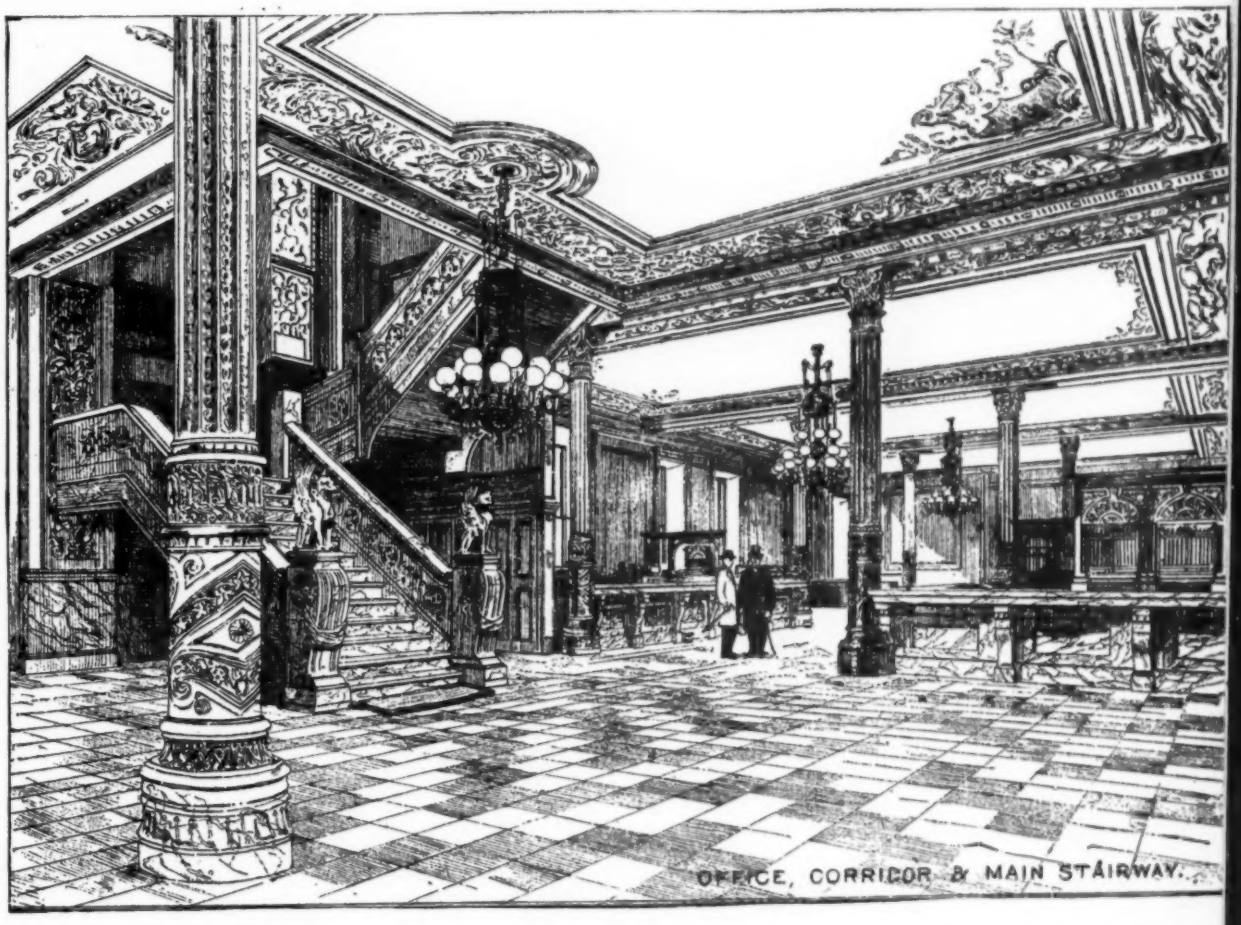
OUR esteemed Southern cotemporary, the Baltimore MANUFACTURERS' RECORD, the great industrial journal of the South, announces that it has purchased the Baltimore Journal of Commerce and Price-Current from the estate of the late George U. Porter and will continue the publication as a weekly commercial paper. The Journal of Commerce, like the MANUFACURERS' RECORD, will be devoted principally to Southern interests, and in the hands of its enterprising new owners it will take still higher rank. They are men of means and they know how to run an industrial journal.—Lumber World.

## Murray Hill Hotel, New York.

Standing prominently upon the broadest avenue in New York city, the Murray Hill Hotel is synonomous with the quiet and refined elegance peculiar to the section of the city in which it is located, and after which it takes its name. In front of it is a small but well kept park, on either side of which Park avenue passes on its way to the Grand Central Depot at 42d street, where trains may be taken for any point North, East or West; and it is bounded on the one side by 41st street and on the other by 40th street, extending in one unbroken front between these two points.

In the design of the interior of this building the architect has overcome entirely the cheerlessness that pervades most hotels, no matter how handsomely they may be finished, for the moment the visitor steps within the spacious doorway his whole being is pervaded with the coziness of the interior, which makes him feel as though he were entering some elegantly appointed private house rather than an inn. If it be winter, his eye is charmed by the immense wood fire kept constantly burning at the end of the lobby.

This lobby is a feature of the hotel. Entering it from the main doorway one sees a vista of marble and hard wood finish, with unique decorations in hammered brass and bronze. On the right are the offices, with all the conveniences that have been made possible by modern ingenuity; while on the left, directly opposite the office counter, are the hotel post-office, cigar, paper and book stands, a telegrah office, and the telephones connecting directly with every floor in the building. As the visitor passes on between the office and these stands the lobby opens out, and before him is the fire-place, spoken of above, topped with a massive mantel, over which is a large mirror, reflecting the beauties of the place.




After entering the doorway and before reaching the office, there opens out to the right and left, respectively, hallways running parallel with the front of the house. The one to the right leads to the coat room, gentlemen's reading and smoking parlors, and to the beautiful dining room on 41st street, where meals are served *a la carte*, and which, perhaps, has no equal in this or any other country for beauty of finish in its decorations. The hall to the left leads to the private and public parlors, the elevator and to the ladies' private entrance on 40th street, and also to the other dining room, equally artistic to the first named, where meals are served *a la table d'hote*. These dining rooms are respectively 110x50 feet and 110x60 feet, are furnished with carved oaken chairs, upholstered in stamped leather; the floors are covered with Wilton carpets, while silk velvet hangings in old gold adorn the walls, together with the most exquisite frescoings on both the walls and ceilings. There are eight parlors, each of which is a work of art.

The lobby is lighted by electric lights in splendid chandeliers of unique design, made expressly for this house, which are of polished brass, worked in graceful designs and studded with jewels that flash and glitter in the clear light like veritable gems. The other chandeliers and single lights throughout the house are of chrystal or Baccarat glass, each, like those in the lobby, having been made especially from original designs.

Above the main floor are seven others arranged for guests, where rooms may be obtained singly or *en suite*, and the building is so constructed that each room opens to the outer air and light. In the furnishing of these rooms much thought as well as money was expended, and it is safe to say that there is not a hotel in the world where the appointments and conveniences are more perfect. Special attention has been paid to the arrangement of the *suites* of apartments, and families can be as comfortably provided for and can be as retired as in the most fashionable flat, and the constantly increasing number of persons who desire to avoid the annoyances of housekeeping troubles, has shown the projectors of this house that they builded wisely. On each floor there are attendants constantly on hand, and the service is expedited by means of telephonic communication with the main floor, from which articles required are sent up in small dumbwaiters.

As well in these bedroom floors as in the lobby and its surroundings have the proprietors endeavored to do away with the barren and chill appearance of ordinary hotel rooms, and everything has been done, and done successfully, to give each room and *suite* of rooms a home-like appearance. One can adopt either the American or European mode of hotel life, and can make exceedingly reasonable terms for rooms alone.

The entire building is as thoroughly fire proof as it can be made, and a speedy exit from each floor is provided by means of six broad stairways and their capacious elevators. On every floor there are three fire plugs, each with one hundred and fifty feet of hose attached, which are connected with the steam pump and the tanks, the latter containing 14,000 gallons of water.

While the beauties and conveniences of the main and bed-room floors are *par excellent*, nothing has been left unprovided for the comfort of the male guests, to whom the lower floor is devoted. Here is the billiard room, perfect of its kind, fitted with the newest tables of standard manufacture, each table being lighted by incandescent electric lights. Adjoining this room is a spacious and completely furnished barber shop, closets, wash-room, boot-black stand, &c., while at the 40th street end are the bar and cafe. In the former none but the best grades of liquor are kept, and its finishings are in accord with the entire house. The cafe, which connects directly with the hotel kitchen, is for the use of casual guests who desire a less elaborate meal than is served in the main dining-rooms. Here also is served a *table d'hote* dinner every afternoon from five to eight, without wine, at the low price of seventy-five cents.

On this floor are also the kitchen and all its adjuncts, the laundries, &c., all of which are models of their kind, and which are kept scrupulously neat and clean. The immense baggage and store rooms are located on the same floor about the middle of the hotel, and everything connected with them is so systematized that there is no delay

or trouble in getting at one's trunks. The ice consumed and used in this hotel is an item of considerable importance. The proprietors are not dependent, however, upon the crop, but have in use one of the noted De la Vergne refrigerating machines with a cooling capacity equal to nine tons of ice a day. In addition to cooling between twenty and thirty refrigerator cases distributed over the building—in the kitchens, pantries, meat, fruit, vegetable and wine rooms, it freezes all the caraffes for the cafe and dining rooms, and makes one thousand pounds of ice per day for the bar and other purposes. The temperature kept in the refrigerator is lower than can be maintained by the use of natural ice, and the uncleanliness accompanying the use of ice is entirely done away with. The temperature in the different places is always regulated by the engineer of the building, and the hauling and handling of ice is, of course, unnecessary. This machine is perhaps the first one of the kind that has given entire satisfaction, and its simplicity, reliability and economy in operating make it equal any ordinary steam engine or steam pump.

The most perfect sanitary arrangements prevail throughout the entire hotel, and no expense has been spared in attaining this end. From sub-cellar to roof nine air shafts, in which steady currents are maintained by means of exhaust steam pipes, carry off all impure air and furnish complete ventilation.

The hotel is as conveniently located, with respect to travel, as could be asked for. A line of horse cars passes under the tunnel over which Park avenue is located, while the Third Avenue elevated, by which the entire east side of the city, up and down town, is accessible, is but a stone's throw away. The Sixth Avenue elevated, on the west side, is only a short distance off, and a cross-town line of horse cars, running through Forty-second street, connects with it. Then the Grand Central Depot, of which mention has already been made, is only a block distant, and to and from it the baggage of guests is transported free of charge.

This hotel has been open now nearly two years, and has passed beyond the limit of an experiment until its success has become an assured fact. At first it was said that it was too expensive and elaborate to pay unless fabulous prices were charged, but Messrs. Hunting & Hammond, its proprietors, thought differently, and they have proved that an elegant and refined house can be conducted on a paying basis at moderate rates. They are men of vast experience in hotel life, and have devoted all their energies towards making a success of this venture; and, as has already been said, it has now passed beyond a venture, and they can proudly boast of having overcome all obstacles. None who visit this place fail to return, which is the best proof of its popularity, and families are there to-day who went to live in it during its first winter season.

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BIRMINGHAM, ALA., Sept. 3, 1886.

*Editor Manufacturers' Record:*

J. A. Van Hoose, Jos. McLester, J. W. Johnston, president of the Georgia-Pacific Railway Co., and I. Y. Sage, general superintendent of same company, have organized the Birmingham Warehouse & Elevator Co. They have secured 2 squares of very desirable land between 27th and 29th streets and 8th and 9th avenues, at the point of contact between the Kansas City and the Georgia-Pacific Railways. The Company have 3,400 feet of side track room, and will have side tracks run in from all the railroads centering at Birmingham. The fact is very evident that Birmingham will at once become a great depot for supplying Florida, Alabama, Georgia, lower Mississippi and Southern Tennessee with Western products. Here the Birmingham Warehouse and Elevator Co. will have stored ready for immediate shipments large quantities of grain, hay, flour, bran, lard, etc. The capacity, when completed, will accomodate hundreds of car loads if necessary. J. A. VAN HOOSE.

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LEXINGTON, VA., Sept. 6, 1886.

*Editor Manufacturers' Record:*

Maj. Willis, of South Carolina, and Mr. Sandford, of New Jersey, will put up an experimental furnace at the Cash Tin Mine to test quality of tin as soon as possible. Cost $8,000. A. P. BOUDE.

# MINING NOTES.

By T. K. BRUNER, Salisbury, N. C.

THE NORTH CAROLINA TALC & MARBLE CO.

The quarries of the North Carolina Talc & Marble Company are situated directly on the line of the Murphy division of the Western North Carolina Railroad, in Swain county, and 98 miles from Asheville, where the two branches of the Western North Carolina Railroad have their junction. The company is a private corporation, comprising three owners—one Carolinian and two Virginians. They own a small tract but a very valuable one, as what follows will show. There are but 175 acres, which is cut in two by the railroad.

Three immense beds of talc have been opened, but only one of these has been quarried to any extent. The other two are held in reserve. A large quantity has been taken from the quarry next to the railroad. They have a side track which is within a few feet of the quarry, and it is an easy job to take out and weigh a car load of talc. The material is the finest in the country, being pure white and absolutely free from all impurities. It has a variety of uses, but is mostly used as an adulterant. It goes into flour, sugar, candy, soap and a large number of other things—which is all wrong—and is used in rolling mills for making iron and by the natives as a lubricant. They grind it up and mix it with grease and lubricate wagon and car wheels. This talc was first hauled over 80 miles of dirt road to Cleveland, Tenn., where a ready market was found for it. This was before the days of railroads. The Nantahala river also runs through this property.

BEAUTIFUL MARBLE.

But the tale is only half told. There is enough marble on the property to build a city. The house could be of black, white, green, blue, flesh color, pink or variegated. The marble is in great abundance. Blocks can be gotten out fifty feet in length and 4x4 feet without crack or seam! Think of it. There is a cliff of solid marble on the property thirty feet high. This marble is susceptible of high polish, and is very beautiful for ornamental purposes, indoor and furniture decorations, and for monuments, being of a more genial and warmer tint than the cold white so common a short time ago. From an adjoining quarry marble was taken out last month for use in the new governor's mansion, now in course of construction in Raleigh, N. C. The North Carolina Talc & Marble Company are doing a prosperous business in talc and are constantly shipping that material to various parts of the country. W. S. Thomas and B. B. Royal are the superintendents, at Jarrett's P. O., Swain county, N. C. The governor owns a half interest.

UNION COUNTY NOTES.

Boston parties have taken charge of the Howie Mine on a lease with privilege to purchase. Machinery is now being erected and this well-known property will soon be producing gold.

PENNMAN MINE.

This mine will probably be in operation by November 1st, and its development will be watched with interest.

ALTAN MINE.

The experimental work done on this property some time ago having proved entirely satisfactory, a Griffin mill and Crow concentrators (dry process) have been ordered and will soon be in place on the property.

BREWER MINE.

The Brewer Mine is now under offer to California capitalists, and a sale is confidently expected. The Brewer will give a good account of itself when equipped with a plant capable of showing what this property can really do. It is a fine mine and when carefully worked, as it is expected to be, must return handsome profits.

SOUTHERN BELLE.

The Southern Belle Mine is in Rowan county, about six miles south of Salisbury, and is owned by Boston capitalists. Dr. A. P. Lighthill, of Boston, the president of the company, was on the property last week and says that it is quite likely that the company will make a move in regard to the Belle in a short time. Operations have been suspended for some time, which the doctor attributes to the want of management on the part of the superintendent. His failure discouraged the owners, but they are again ready to move. The Southern Belle produces an arsenical sulphide which is of fairly good grade, and could be made profitable by concentrating and chlorinating.

Dr. Lighthill is also a member of the Carolina Queen Mining Company, who own property in Burke coounty. He has gone there with a view of verifying the reports so favorable to the company in the development of that property. The Carolina Queen is to be pushed just as rapidly as the development will justify. The Boston company have great faith in this property.

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## To Build Ice Factory—Machinery Wanted.

DURHAM, N. C., September 2, 1886.

*Editor Manufacturers' Record:*

I desire to put in an ice factory here this fall and winter and would be very thankful if you will send me the address of some reliable company that is manufacturing ice machines and fixtures. T. B. SMITH.

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MOBILE, ALA., Sept. 1, 1886.

*Editor Manufacturers' Record:*

The Penn-Mobile Coal Co. have bought out the Corona Mines. This organization will make the property of the Penn-Mobile one of the finest in the country. They take possession of Corona to-day. General Richard Coulter, of Greensburg, Pa., is president of the company and most of the stock is held in Pennsylvania. L. MARX.

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## Erecting Saw Mill.

OLIVER SPRINGS, Sept. 6, 1886.

*Editor Manufacturers' Record:*

I am erecting saw mill on waters of Poplar Creek, about 2½ miles from Oliver Springs, on proposed Emery Gap & Knoxville Railroad. WILLIAM RENNIE.

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## Water Works for Salisbury.

SALISBURY, N. C., Sept. 4, 1886.

*Editor Manufacturers' Record:*

We have contracted with Messrs. Moffett, Hodgkins & Clarke, of Watertown, N. Y., to build, own and operate water works for our town, to be completed by April 1, 1887. The capacity of pump is to be one million gallons per day, and the stand pipe 200 000 gallons capacity. E. B. NEAVE.

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## Will Build Ice Factory—Machinery Wanted.

PARIS, TEXAS, Aug. 29, 1886.

*Editor Manufacturers' Record:*

We will build during the winter, to be ready for the next season, an ice factory; have not decided what capacity. Will put in other machinery to utilize our power during the winter. We solicit correspondence of paries who have ice machinery for sale.

J. D. ELLIOTT.

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## Building a Railroad.

ATLANTA, GA., Septembor 4, 1886.

*Editor Manufacturers' Record:*

We are rapidly constructing the road and will have same in operation within 60 days. It is highly probable the road will extend to Eatonton, as by such extension Athens and Macon, Ga., would be connected by rail.

HARRY HILL, President
UNION POINT & WHITE PLAINS R. R.

---

SOME one has truly said there is but one American House and that is in Boston. There is never any deviation in the management, and the result of minute attention to the details is shown in the splendid system and discipline that prevails throughout the hotel. †

## The Sergeant Drill.

The following letters lately received by the Sergeant Drill Co. show the estimation in which the Sergeant Drill is held:

MIDDLETOWN, August 5, 1886.

*The Sergeant Drill Co.:*

Concerning the working of the Sergeant Rock Drill, some two months since placed on our quarries at Haddam to be worked and tested subject to our approval, we are pleased to say:

The Feather and Plug Drill is a marvel of simplicity and effectiveness. In the department of our work in which this has been used our product can be doubled at a less cost. As to the work of the large 3¼ drill, that has been also eminently satisfactory. Our quarries had been worked for over three-fourths of a century. We had none, or but few, of the modern improvements. All had been claimed failures. We had but few men on whom we could rely for the supposed necessary mechanical talent. All prophesied failure. They claimed our rock more difficult than the most difficult sandstone or granite, and so it proved to be. We have now educated our operatives. Men of common intelligence with no especial mechanical education are working our drills with absolute success. In a word, I would say I know of no problem in rock drilling which your engineering skill with the Sergeant Rock Drill will not solve.

Yours truly,
THE HADDAM QUARRY & LUMBER CO.
S. S. WARNER, Treasurer.

PORTLAND, CONN., August 3, 1886.

*The Sergeant Rock Drill Co.:*

We have had in use in our quarry one of your Triumph Rock Drills. It has drilled on an average, when set, one foot per minute. We are so well pleased with its execution that we have this day ordered another from your agent for Middlesex county, and propose to have a drill on each of our six rocks. Several other styles of steam drills have been tried on our rock, and all of them have proved failures, and their owners have taken them away in disgust. Yours is the first one which has proved successful. I can fully recommend your drill as the best in the market, as far as my experience and observation goes. Your drill, in connection with "The Knox Rock Blasting System," has worked a complete revolution in quarrying, the cost of production being thereby reduced fully fifty per cent.

Sincerely yours,
THE MIDDLESEX QUARRY CO.,
F. W. RUSSELL, President.

PORTLAND, CONN., July 21, 1886.

*The Sergeant Drill Co.:*

We have for several years been trying to use steam drills in this quarry, and have had one or two other kinds here under charge of their own men, but they have all failed to get any satisfactory results, and for some time past the matter has been dropped and we supposed it was not practicable to drill by steam. Last winter your company offered to test their drill here, and during the present month have done so under your supervision, and we report the result as highly satisfactory to us. We are now using your drill, and with results that we feel will lead to its general use on all our rocks. We have no trouble in handling it with our ordinary quarrymen, and are willing to pronounce it the best dtill we have seen. Yours truly,

THE SHALER & HALL QUARRY CO.,
O. W. MACK, Agent.

PORTLAND, CONN., August 2, 1886.

*The Sergeant Drill Co.:*

Replying to your esteemed favor of 27th ult., have to say that our directors will meet to-morrow, and will doubtless authorize me to purchase the drill we now have of your agents, the Shaler & Hall Quarry Co. The drill works well and gives good satisfaction, and we shall want to stock up with five or six more between now and spring upon the terms agreed upon.

Truly yours,
THE MIDDLESEX QUARRY CO.,
F. W. RUSSELL, President.

A. J. LYMAN,

(Member of the National Association of Real Estate Dealers, U. S. A.)

**Real Estate & Loan Broker,**

ASHEVILLE, N. C.

**Office in Court-House Building.**

Special attention paid to placing loans on the best real estate security in city or country at 8 per cent. per annum.

REFERENCES—HON. WM. R. COX, Washington, D. C.; HON. WALDO HUTCHINS, New York City; WM. HAMERSLEY, ESQ., Hartford, Conn.

# Splendid Tobacco Farm FOR SALE IN NORTH CAROLINA.

Sixty acres of fine tobacco land with splendid two story house and beautiful yard, fronting about 350 feet on the main street. in a town of 150 to 175 population, 15 miles from a city of 15,000 inhabitants and one of 5,000. The house is 300 yards from depot. There is a large stable, carriage house, corn crib and other out-houses, including 3 tobacco barns and 2 tenant houses Good well o freestone water; 400 peach and apple trees, and 425 grape vines, all in full bearing. Splendid climate; healthy location. The buildings alone cost $3,500. Will take $2,500 cash. Special reasons for selling. Address **J. P. R.**, care MANUFACTURERS' RECORD.

# FOR SALE.

Second-hand engines at the following bargains:

| | | Price. |
|---|---|---|
| *1 20 x48 engine and 18 ft. fly-wheel | | $ 950 |
| †1 15 x30 " " 12 " " | | 700 |
| *1 16½x36 " " 12 " " | | 1,225 |

*Plain slide valve. †Putnam Automatic Cut-Off.

Delivery F. O. B. Columbus, O. Address

## COLUMBUS MACHINE CO.

**Columbus, Ohio.**

## TWO WATER POWERS

On same stream and in sight of each other

# FOR SALE.

Fall about 18 feet, and about 30 horse power each One is now running a one set woolen mill, building new, 2 stories, and large enough for two set mill. Well located. At the other place is a mill house. Good location for business of any kind. In connection with these water powers there are 200 acres of good land, with two dwelling houses, barns and all other out-buildings. Will sell all together or separately. For full description write to

**HENRY MILLER & SON,**
**JONESBORO, TENN.**

## FOR SALE. Boiler and Engine,

40-HORSE-POWER. USED BUT 8 MONTHS.

Chesapeake Screw Co., Baltimore, Md.

## Cotton Seed Oil Mill and Ginnery *FOR SALE.*

Capacity twenty tons per day. Titles perfect. A fine and valuable property, in the town of Pittsburgh, Texas. For particulars, address,

**E. VAN WINKLE & CO., Atlanta, Ga.**

## 65-HORSE-POWER HORIZONTAL, STATIONARY STEAM ENGINE FOR SALE!

Second-hand, but warranted good as new. Will be sold cheap for cash. Address,

**W. C. BUCHANAN, Lancaster, Pa.**

## For Sale, Cheap.

4,000 ft. 3 in. & 52 ft. 6 in. Gas Pipe.

Has been used only 6 months for conducting water. Will be sold in any quantity.

**Geo. H. Cornelson,**
**Orangeburg, S. C.**

# IRON MILL FOR SALE at a SACRIFICE.

A RAIL MILL, completely equipped for manufacturing Rails, and well adapted to making Bar and Plate Iron and Nails, is for sale at about **One-Fifth its Cost!**

It is located on the Mississipi River near a large city, with both rail and water transportation.

Buildings, Engines and Machinery are new and of the best quality, with ample power.

Full particulars, with inventory of machinery and view of mill, by addressing

**Iron Mill,**
Care THE MANUFACTURERS' RECORD,
Baltimore, Md.

## FOR SALE. *Contractors' Supplies of all Kinds.*

RAILROAD EQUIPMENT

Rails, Spikes, etc., Water, Sewer and Gas Pipe, Mill Machinery, Tools and Implements.

WE PAY CASH

For Old Iron, Rails, Scrap, and Buy and Sell Second-hand Property of Every Description. Correspondence Solicited.

**BARROWS & CO., 64 & 66 Broadway, N. Y.**

## FOR SALE.

AN ESTABLISHED BUSINESS and a splendidly built two-story brick building erected expressly for it. Fine opening for a man of small means, who wants to engage in the manufacturing, repairing and selling of buggies, wagons, plows, etc. Reason for selling: Desire to engage exclusively in the manufacture of farm wagons for the wholesale trade. Apply or write to **Owensboro Wagon Manufacturing Co., Owensboro, Ky.**

## WATER WHEEL WANTED.

Parties having a second-hand Leffel Water Wheel, size 48-in. to 60-in., for sale cheap, may find a buyer by giving full description and lowest cash price to the undersigned.

**J. N. TORRENCE, Gaffney City, S. C.**

## McShane Bell Foundry

Fine Iron and Brass Castings Made to Order.

Manufacture those celebrated **Bells for Tower Clocks, Court-Houses, Cotton Mills, Factories, &c.** Prices and catalogues sent free. Address

**H. McSHANE & CO.**
**Baltimore, Md.**

Mention this Paper.

## Roller Chain Belting

Detachable in every Link.

FOR IMPROVED

ELEVATORS, Conveyers, AND DRIVING BELTS.

FOR HANDLING

Coal, Ores, Grain, CLAY, BRICK, &c.

ADDRESS THE

**Roller Chain Belting Co.**
COLUMBUS, OHIO.

Also Manufacturers of the Legg Coal Mining Machines and Rotary Power Coal Drill.

Send for Illustrated Catalogue.

*WE SOLICIT CONTRACTS FOR*

# COTTON SEED OIL MILLS,

## INCANDESCENT LIGHT FOR MILLS,

## STEAM POWER FOR FACTORIES,

## ROLLER OR BURR FLOUR MILLS.

SPECIAL AGENTS FOR

The Westinghouse Engine,
The Smith-Vaile Oil Mill Machinery,
The Westinghouse Electric Machinery,
The Smith-Vaile Pumping Machinery.

## D. A. TOMPKINS & CO.

Engineers and Contractors, - - CHARLOTTE, N. C.

# LOVELL MANF'G. CO., Limited, ERIE, PA.

—MANUFACTURERS OF—

# Clothes Wringers,

## Delusion and Bonanza Mouse Traps,

## THE FOLDING WIRE RAT TRAP,

## The Erie Rat Trap, Etc., Etc.

TO THE TRADE.

GENTLEMEN.—We ask your special attention to our new line of Clothes Wringers. An experience of over thirteen years in the manufacture and sale of this class of goods, we believe, enables us to judge correctly of the wants of the trade and the public.

Special care has been taken in the construction of all our Wringers to overcome difficulties and weak points that have been developed in this class of goods by past experience, and we believe a careful examination will show that we succeeded in this respect to a marked degree.

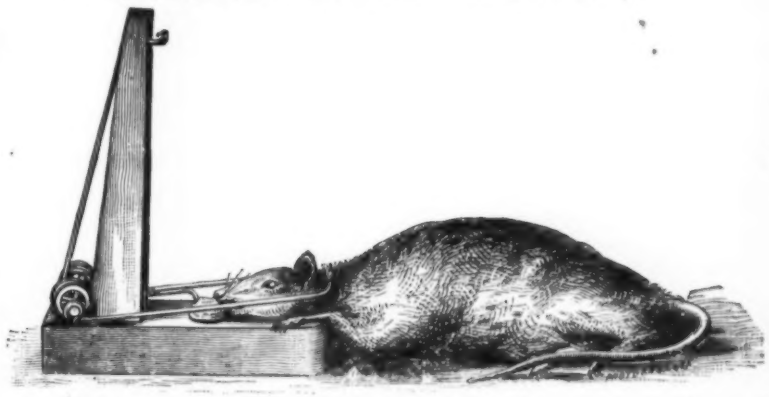
Our facilities for the production of these goods are unexcelled; we have a new factory, the latest and most improved machinery, the best of skilled workmen, and are fully able to meet any demand that may be made upon us, either for quantity or quality.

IMPORTANT.

We do not use the old Tube Rolls in any of our Wringers, but use exclusively the Patent Rolls in which the *rubber is vulcanized upon the shaft.*

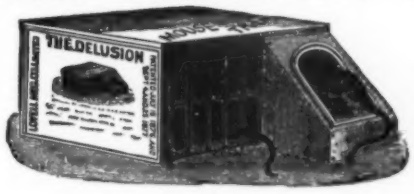
In all our lines of goods we shall endeavor to keep the standard of quality up to such a point of excellence as will merit the confidence and favorable consideration of the entire trade. All correspondence and orders will receive prompt and careful attention.

## ERIE RAT TRAP.



A Trap that can always be depended upon to catch Rats. The wire work is all nicely tinned and will not rust.

## THE DELUSION MOUSE TRAP.




The Mouse goes in to get the bait,
And shuts the door by his own weight,
And then he jumps right through a hole,
And thinks he's out; but, bless his soul,
He's in a cage, some how or other,
And sets the trap to catch another.

## BONANZA MOUSE TRAP.

Send for our Illustrated Catalogue.

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# B. W. PAYNE & SONS

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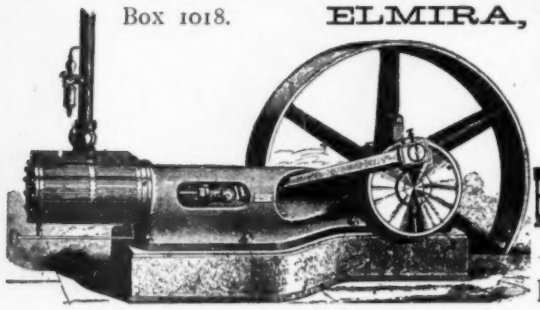

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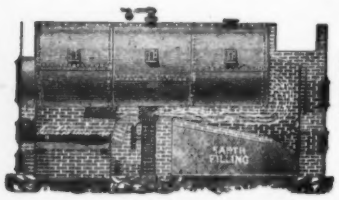

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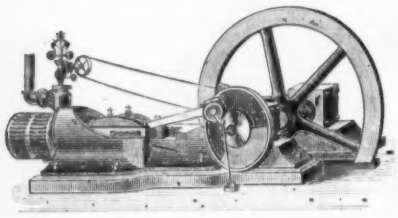

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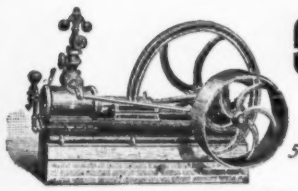

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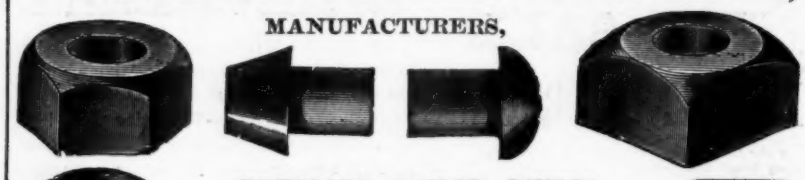

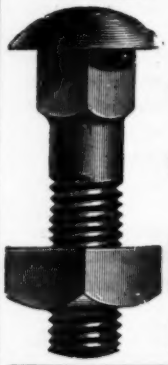

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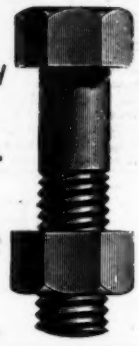

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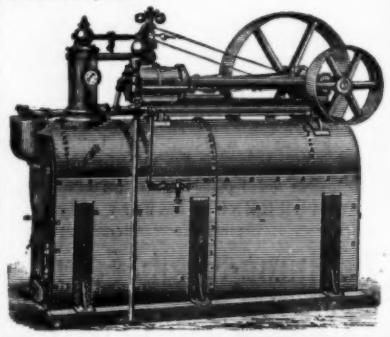

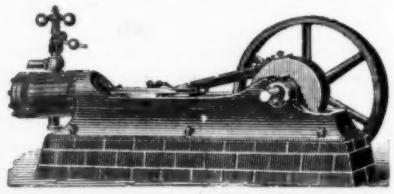

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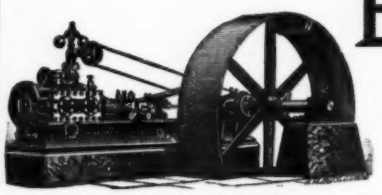

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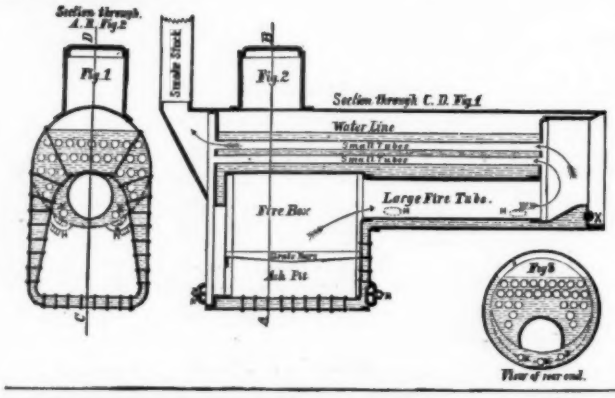


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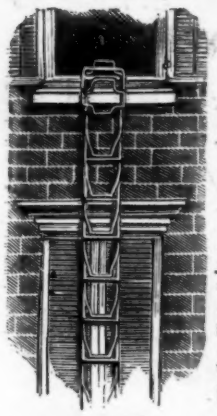

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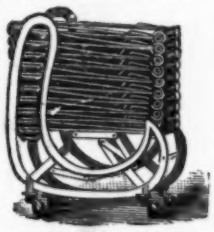

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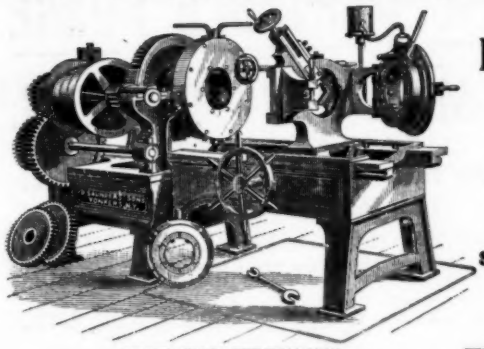

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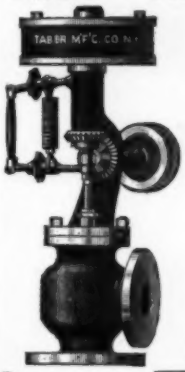


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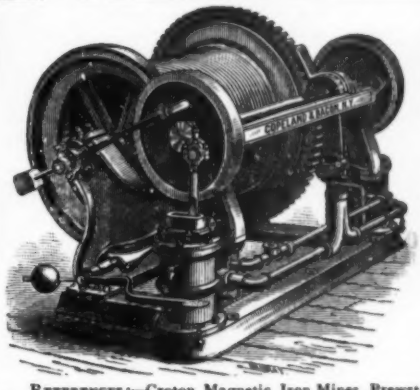

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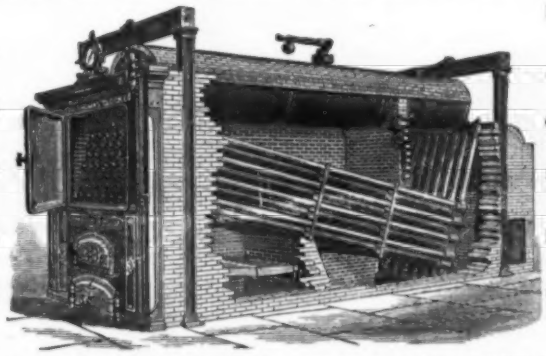

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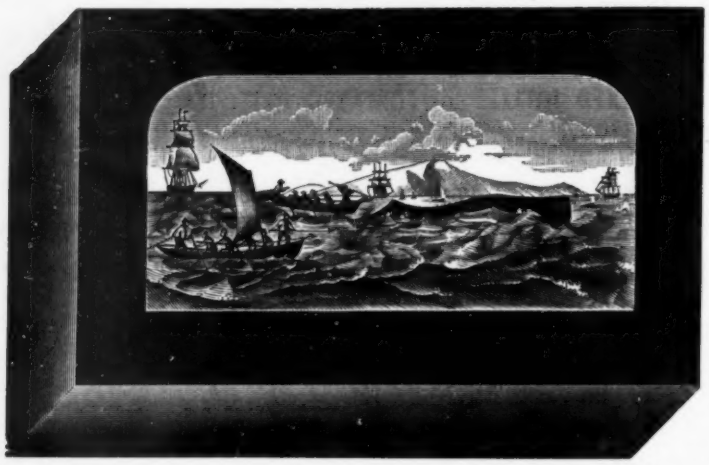

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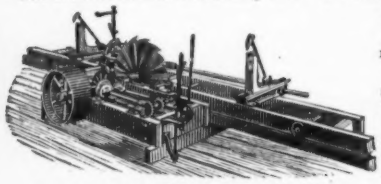

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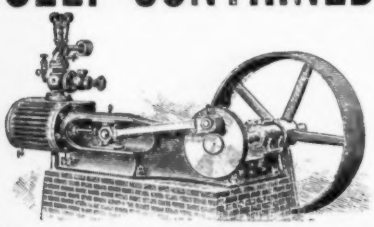

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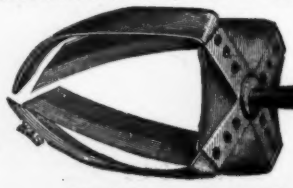

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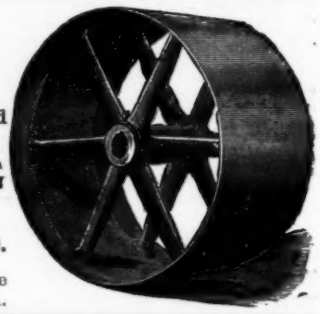
**GEARING**

A SPECIALTY.

**Cleveland, - Ohio.**



Estimates furnished. Write for Gear and Price-Lists A.

# THE SCIENTIFIC PORTABLE FORGE

AND

## BLACKSMITH HAND BLOWERS.

GUARANTEED

**The Lightest Running! The Strongest Blast! The Most Durable!**

**ADAPTED TO ALL KINDS OF WORK,**

Send for Catalogue! **AND MADE IN STYLES AND SIZES TO SUIT.**

**THE FOOS MANUFACTURING CO., - - Springfield, Ohio.**

# The Little Giant Excavator.

—A LONG FELT WANT SUPPLIED.—

## For DITCHING, EXCAVATING

*Loading Wagons and Cars, Etc.*

50 TO 100 PER CENT. SAVED IN LABOR.

Capacity of Machine 500 to 700 cubic yards per day. Self propelling. Easily moved. Being built entirely of steel, is both strong, light and a very substantial machine. Can be used on flat-boat for dredging ditches, irrigating or digging canals. Contractors and railroads promptly furnished with estimates for excavators of every description.

**Address VULCAN IRON WORKS, Toledo, Ohio.**

# STEEL CASTINGS

## FROM 1-4 to 15,000 lbs. WEIGHT.

True to pattern, sound, solid, free from blow-holes, and of unequaled strength.

Stronger and more durable than iron forgings in any position or for any service whatever.

40,000 CRANK SHAFTS and 30,000 GEAR WHEELS of this steel now running prove this.

CRANK SHAFTS and GEARING specialties.

STEEL CASTINGS of every description.

☞ Send for Circulars and Prices to

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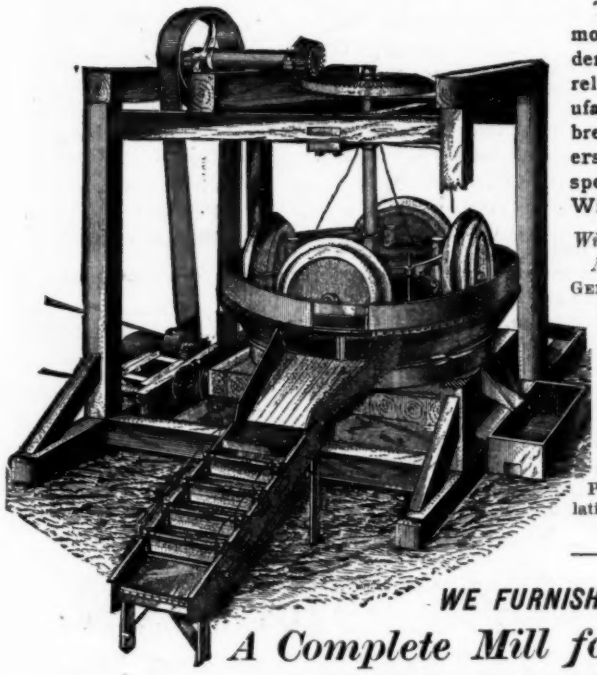
Office, 407 Library Street, Philadelphia. Works, Chester, Pa.

# WISWELL

# Ore Pulverizer and Amalgamator

## COMBINED.



**The following testimonial from Mr. Marsden, of the firm of Farrel & Marsden, manufacturers of stone-breakers & ore-crushers, Ansonia, Conn., speaks volumes for the Wiswell Mill:**

*Wiswell Electric Mining Machinery Co.:*

GENTLEMEN: After carefully inspecting your mill and seeing it in operation, I do not hesitate to say that it is one of the best, if not the best pulverizer and most complete gold saving machine I have ever seen.

Please accept congratulations for your success.

S. L. MARSDEN.

***WE FURNISH***

***A Complete Mill for $2,500***

**DELIVERED ON BOARD CARS.**

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## WISWELL

## Electric Mining Machinery Company,

**A. A. REEVE, Treas. 4 Post-Office Square, Boston, Mass.**

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# JANNEY & CONGDON

## Baltimore, Md.

HEADQUARTERS FOR

# Goodyear's Rubber Goods.

## RUBBER AND LEATHER BELTING,

***Lace Leather, Machine Packing,***
***Rubber, Cotton and Linen Hose,***
***Steam Suction and Brewers' Hose.***

## Steam Fire Engine Hose, and Tubing.

## Fire Buckets, Mats and Matting.

# RUBBER BOOTS AND SHOES. CLOTHING.

**Heavy, Medium and Light Weight**

*Horse Covers, Wagon Aprons, Druggists' Goods, Stationers' Goods, Air Pillows, Air Beds, Cushions, Nursery Sheeting, Hospital Sheeting,*

**And Everything in Goodyear's Rubber Goods, Wholesale and Retail.**

***Janney & Congdon,*** ***BALTIMORE, MD.*** CATALOGUE ON APPLICATION.

---

If you want Shingle, Heading and Stave Machinery write for Catalogue A. If you wish Handle Machinery ask for Catalogue B. We solicit correspondence, and will give it prompt attention. Mention This Paper.

# TREVOR & CO.

## Lockport, N. Y.

MANUFACTURE

# HEADING SHINGLE AND STAVE Machinery

—ALSO,—

# LATHES

AND

## Special Machinery

FOR

**Turning Handles and all other Turned Articles of Wood.**

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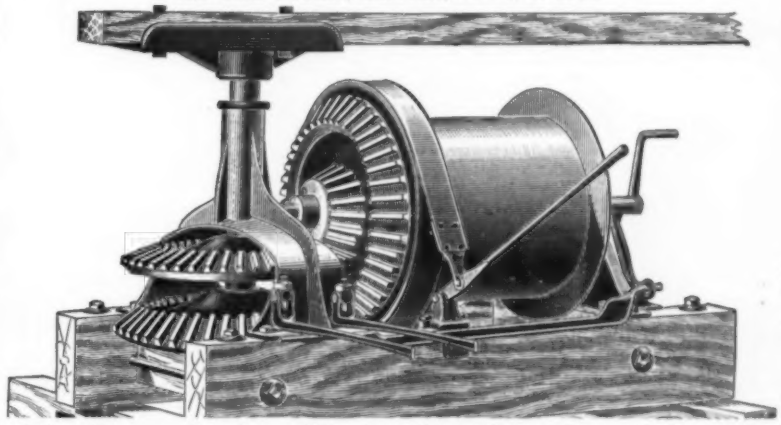
## THE CONTRACTORS' PLANT MANFG. CO.

129 ERIE STREET, BUFFALO, N. Y., U. S. A.



This cut illustrates our latest Improved Horse Power Hoisting Machine. This machine has a combination of fast and slow speed. With the fast speed a horse will lift 1,600 to 2,000 lbs. on a single line at a speed of 60 feet per minute, and with a single block 3,500 lbs. 40 feet per minute. With the slow speed a weight of 1½ tons with a single line, and with a single block 3 tons; with two single blocks 5 tons; with double and single blocks 7 tons. The speed single line 30 feet per minute, with single block 15 feet per minute.

In this combination of gears the user has the advantage of two machines embraced in one, with a saving of 25 per cent. in cost and 60 per cent. in weight.

The machine is so simple in its construction that it can be easily understood without explanation. The changing of the speed is done in an instant by simply raising or lowering a lever to the left of the machine without being obliged to stop the horse. With the powerful brake and automatic safety attachment, and with the strength and durability, together with the lightness of this machine, we think we have accomplished a purpose which will be appreciated by our customers, and give us a ready sale of this machine. Price $150 net.

**We Also Manufacture Horse-Power Hoist for Railway Contractors, Bridge Builders and Quarrymen.**

Correspondence Solicited. Illustrated Catalogue furnished on application. Mention this paper when you write.

---

## SYRACUSE TWIST DRILL CO., Syracuse, N. Y., U. S. A.

Manufacturers of **TWIST DRILL BITS**

—FOR WOOD AND METAL.—

Measuring Machines, Comparators, Reamers, Drill Chucks, Tool Holders, and Special Tools. ☞Send for Illustrated Catalogue and Prices.

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## IMPROVED HOISTING ENGINES,

MANUFACTURED BY THE

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Specially adapted for Railroad and Contractors' uses, Pile-driving, Bridge and Dock Building, Excavating, etc. Single or double cylinders, with single or double improved friction drums, with or without Boilers.

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## SPECIAL OILS

*For Cotton Mills and Gins, Woolen Mills, Railroads, Tanneries, Saw and Planing Mills.*

## THE FINEST ENGINE OILS

Best Qualities, Lowest Prices.

## WE ARE MANUFACTURERS OF and DEALERS IN

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|---|---|---|
| Buckeye Cylinder Oil. | Castor Machine Oil. | Lard Oil. |
| Champion Cylinder Oil. | Extra Lardoleum Oil. | Neatsfoot Oil. |
| Globe Cylinder Oil. | Sperm Machine Oil. | Miners' Oil. |
| Champion Engine Oil. | Golden Machine Oil. | Red Rose Electric Oil. |
| Buckeye Engine Oil. | Dark Oils (Summer & Winter.) | Crystal Dew Drop Oil |
| Prime Engine Oil. | Buckeye Harness Oil. | Head Light Oil. |
| Extra Engine Oil. | Sperm Signal Oil. | Naphtha. |
| White Castor Machine Oil. | Axle Grease. | Gasoline. |

We solicit correspondence, and will send prices and samples upon application. We guarantee our OILS to be SAME AS THE SAMPLE, and in EVERY RESPECT just as represented. TRY THEM.


## PAINTS, OILS, &c.

PAINTS.

| | |
|---|---|
| Black Lamp, coach painters | ₱ ℔ 20c |
| Black Lamp, ordinary | ₱ ℔ 4@6c |
| Black Ivory Drop, fair | 12@15c |
| Black Ivory Drop, best | .20c |
| Black Paint, in oil. .....kegs, 6c; assorted cans, 9c | |
| Blue Prussian, fair to best | 30@40c |
| Blue Prussian, fair to best, in oil | 35@40c |
| Blue Chinese, dry | 70c |
| Blue Ultramarine | 12@25c |
| Brown, Spanish | 1c |
| Brown, Van Dycke | 5@15c |
| Green, chrome | 8@15c |
| Green, chrome, in oil | 9@12@15c |
| Green, Paris | good, 20c; best, 25c |
| Green, Paris, in oil | good, 20c; best, 25c |
| Iron Paint, bright red | ₱ ℔ 2½c |
| Iron Paint, brown | ₱ ℔ 1½c |
| Iron Paint, purple | ₱ ℔ 3c |
| Iron Paint, ground in oil, bright red | ₱ ℔ 5½c |
| Iron Paint, ground in oil, red | ₱ ℔ 5c |
| Iron Paint, ground in oil, brown | ₱ ℔ 4½c |
| Iron Paint, ground in oil, purple | ₱ ℔ 6c |
| Linseed Oil, raw | 44c |
| Single Boiled | 46c |
| Double " | 48c |
| Mineral Paints | 2@4c |
| Orange Mineral | 0c |
| Red Lead, American | 6¼@7c |
| Red Venetian, (English) dry | $1.50 to $1.75 |
| Red Venetian, in oil .....assorted cans, 9c; kegs, 6c | |
| Red Indian, dry | 8@12c |
| ose Pink | 10@13c |
| Sienna, American, raw | 4c |
| Sienna, Burnt | 4c |
| Sienna, burnt, in oil | 8@15c |
| Sienna, raw | 8@15c |
| Umber, burnt | 4@8c |
| Umber, burnt, in oil | 8@14c |
| Umber, raw | 3½@7½c |
| Umber, raw, in oil | 8@14c |
| Vermilion, Chinese | 90c |
| Vermilion, English | 60@65c |
| Vermilion, American | 15@18c |
| White Lead, American, pure dry | .7 c |
| White Lead, American, pure in oil | 6½@7 c |
| White, Paris, English, prime .....in brls. 1½@2c | |
| Yellow Ochre, French | $1.75 |
| Yellow Ochre, French, in oil..asst'd cns, 9c; kegs, 6c | |
| Yellow Ochre, American .....in bbls., 1¼@1½c | |
| Yellow Chrome | 8@18 |
| Yellow Chrome, in oil | 9@12@18c |
| Zinc White, American, No. 1, dry | 6@7c |
| Zinc White, American, No. 1, in oil | 6½@9c |
| Zinc White, French dry | 9@12c |
| Zinc White, French in oil | 10@14c |

OILS.

| | |
|---|---|
| Bleached W. Sperm oil | 95@1 00 |
| Nat. " " " | 92@ 95 |
| B. W. Elephant oil | 70@— |
| " Whale oil | 48@ 50 |
| Prime Lard oil | 55@ — |
| Extra No. 1 Lard oil | 50@— |
| Lubricating oils | 7@ 25 |
| Miners' oil | 35@ 40 |
| W. Pressed Fish oil | 30@ 32 |
| Neatsfoot oil | 50@ 75 |
| Steam-refined Cylinder oil | 30@ 40 |
| Best Filtered " " | 50@— |
| Signal oil | 50@ — |
| Paraffine | 12@ 20 |

SUNDRIES.

| | |
|---|---|
| Benzine | ₱ gal., 8@10c |
| Turpentine | ₱ gal., 30c |
| Chalk | ½c |
| Chalk, block | ½c |

## TIN PLATES AND METALS.

TIN PLATES.

| | |
|---|---|
| IC, 10x14, Charcoal | 5 25@ 5 75 |
| IX, 10x14, " | 6 75@ 7 25 |
| IC, 12x12, " | 5 50@ 6 00 |
| IX, 12x12, " | 7 00@ 7 50 |
| IC, 14x20, " | 5 25@ 5 75 |
| IX, 14x20, " | 6 75@ 7 25 |
| IXX, 14x20, " | 8 75@— — |
| IXXX, 14x20, " | 10 75@— — |
| IXXXX, 14x20, " | 12 75@— — |
| IX, 20x28, " | 14 75@— — |
| DC, 100, Plate " | 5 00@— — |
| DX, 100, " " | 6 75@— — |
| DXX, 100, " " | 8 75@— — |
| DXXX, 100, " " | 10 75@— — |
| IC, 10x14 & 14x20, Extra Charcoal | 6 00@ 6 25 |
| IC, 10x14 & 14x20, " " PP. | 6 50@ 7 00 |
| IX, 10x14 & 14x20, " " | 7 75@ 8 50 |
| IX, 10x14 & 14x20, " " PP. | 8 50@ 9 00 |

ROOFING PLATES.

| | |
|---|---|
| IC, 14x20, Charcoal Terne | 4 50@ 4 75 |
| IX, 14x20, " " | 6 00@— — |
| IC, 20x28, " " | 9 00@ 9 50 |
| IX, 20x28, " " | 12 00@— — |
| IC, 20x28, Extra fine quality, charcoal roofing, genuine "old style" redipped. | 13 00@— — |
| IX, 20x28, " " " | 17 00@— — |

COKE PLATES.

| | |
|---|---|
| C, 10x14, bright, "B. V." grade | 4 75@ 5 00 |
| C, 14x20, " | 4 75@ 5 00 |
| C, 10x20, Gutters | 7 50@— — |

BLOCK TIN.

| | |
|---|---|
| Pig Tin | 23 |
| Bar Tin | 26 |

LEAD.

| | |
|---|---|
| Pig | 5¼ |
| Bar, (15 oz. bars) | 6½ |
| Sheet | 8 |
| Pipe, full coils | 7 |

TINNERS' SOLDER.

| | |
|---|---|
| No. 1 Refined | 13 |
| Market Half-and-Half | 14½ |
| Strictly Half-and-Half | 15 |

BABBITT METAL.

| | |
|---|---|
| A 1 | 15 |
| No. 1 Ordinary | 10 |
| Antimony | 18 |
| Excelsior Babbitt Metal, No. 2 | 10 |
| " " " " 4 | 9 |

SHEET ZINC.

| | |
|---|---|
| In casks of 600 lbs., ₱ ℔ | 5¾ |
| In smaller quantities, ₱ ℔ | 6½ |

COPPER.

Braziers' ordinary sizes, 16 oz. ₱ sq. ft. and heavy, including sheathing size ..... 17 cts. ₱ ℔.
Braziers' ordinary sizes, under 16 oz. and over 12 oz. ₱ sq. ft. ..... 18 " "
All sheets, 10 and 12 oz. ₱ sq. ft. ..... 20 " "
" " under 10 " " " ..... 23 " "
Circles, 60 in. diameter and less, three cts. ₱ ℔. advance over prices of Sheet Copper of the same thickness.
Circles, over 60 in. diameter, up to 84 in. diameter inclusive, four cts. ₱ ℔. advance over prices of Sheet Copper of the same thickness.
Circles, over 84 in. diameter, five cts. ₱ ℔. advance over prices of Sheet Copper of the same thickness.
Segment and Pattern Sheets, three cts. ₱ ℔. advance over prices of sheets required to cut them from.
Cold or Hard Rolled Copper, one ct. ₱ ℔. over the foregoing prices.


# NEW YORK CITY WHITE LEAD WORKS

A. Marzolf, Prop.

Manufacturer of the

## ORIGINAL DOLSON WHITE LEAD.

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READY-MIXED PAINTS (Prepared for Immediate Use.)

PURE COLORS DRY AND IN OIL, LINSEED OIL, PUTTY, VARNISHES, JAPANS, &c

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# The U. S. Varnish Co.

CINCINNATI, - - - OHIO.

258 and 260 Colerain Avenue.

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☞Mention this paper.

The A. A. BRAND Patent Interlocked Joint Ready made

# ROOFING

A Trial order cheap. Circulars and samples free. Address CINCINNATI ROOFING CO. 85 E. 8th Street, Cincinnati, O.

## STAR ENCAUSTIC TILE CO.

(LIMITED.)

Manufacturers of all Designs and Colors of Plain and Encaustic **FLOORING TILE** for Hearths, Floors, Halls, Vestibules, Dining Rooms, Bath Rooms, Porches, Kitchens, Laundries, Banks, Hotels, Depots, &c. Works, Cor. Gist & Bluff Streets; Office, No. 90 Fourth Avenue, **Pittsburgh Pa.**

FINE Cut Work —A— SPECIALTY

# PRINTING

RECORD Printing House,

Cor. Exchange Place & Commerce St.

# For Sale Cheap

**15 H. P. Boiler and Engine.**

**One 30 to 40 H. P. Locomotive Boiler.**

All kinds of MACHINERY on long time.

**WM. C. CODD,**

**306 Aliceanna St., - Baltimore, Md.**

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IS GUARANTEED Perfect.

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# THE GLOBE OIL COMPANY, Cleveland, O.

**We desire Good Parties in Every Place of Importance in the South to Handle Our Goods. Will allow a Liberal Commission to men of push and energy. We prefer parties who handle farm and other machinery.**

## Literary Notes.

JULIAN HAWTHORNE can wield something heavier than a pen—in short, a cricket bat. He is said to be a champion cricketer, and an adept at all manly sports. Mr. Hawthorne spends the greater part of the year at Sag Harbor, Long Island, where he and his fine boys have a grand time in the open air, rowing, running, cricketing, and kicking the lively foot-ball. As literary editor of the New York World, and with his other literary work, Mr. Hawthorne does not find a great deal of time for play. His latest story, "John Parmelee's Curse," is just published by Cassell & Co. It is a tale of opium eating and its consequences, and is entirely different from anything that Mr. Hawthorne has written before. Some critics may call it sensational, but all must admit its absorbing interest.

THE sale of "King Solomon's Mines" has reached 35,000 copies, and new editions in cloth and paper are being rapidly printed. One reason for this large sale is that the story interests young and old alike; another is that it is thoroughly original in plot and treatment. The London Saturday Review says of it:

"The treasure in Mr. Haggard's book is nothing less than the diamond mines whence the Sidonian galleons brought King Solomon his jewels. The scene is the center of Southern Africa, Kukuanaland, a region unexplored. In this narrative Mr. Haggard seems, as the French say, to have 'found himself.' He has added a new book to a scanty list of good, manly and stirring fictions of pure adventure." It is published by Cassell & Co., limited, New York.

# TRADE NOTES.

## Large Shipments of Mining Plants.

Meech & Company, Cleveland, manufacturers of mining machinery, have just made a shipment of 200,000 pounds, being a full 50-ton capacity, to Chihuahua, Mexico. Another shipment of like capacity is now loading for Lower California, to be shipped via San Francisco. One plant of like capacity has been contracted for to be shipped to New Mexico, two to Colorado, one to North Carolina, one to Zacatecas, Mexico, and one plant of 100 tons daily capacity, roughing about 400,000 pounds to Chihuahua, Mexico, and more than a score under negotiation.

Meech & Co. are now building a complete mill, to be erected in Cleveland, for the purpose of treating ores for parties wishing to buy machinery. To such the company give the following directions: "Parties desiring to purchase machinery need only ship ores for treatment. Freights should be prepaid, and the parties interested should come on and see the ores treated. Shipments should be plainly marked: 'Meech & Co., Cleveland, O., U. S. A., and the name of shipper given. Not less than 100 pounds nor more than 2,000-pound lots should be sent. Do not ship galena ores, only dry milling ores, such as sulphuret oxide, chloride, and telluride; it matters not how refractory in nature."

The following letter just received from A. J. Wright, superintendent of the Excelsior Mining Co., Oil City, Pa., speaks for itself: "After the continuous running of your mill on our gold and silver ores at Alma, Park county, Colorado, we have demonstrated the following facts: 1. That each of your Disintegrators can be charged with from three to four tons of ore at a run. 2. That by pulverizing the ore from forty to sixty mesh fine before entering the disintegrators, each treatment can be made in three hours. 3. That your system of treating ores, under pressure, perfectly decomposes and desulphurizes the ore, and prepares the same for perfect amalgamation. 4. That the cost of treatment will not exceed $4.00 per ton, and that our ore can be treated at a cost of $3.00 per ton. 5. That we are well satisfied that ninety per cent. can be amalgamated and extracted from our ores or any rebellious ores treated. 6. We cheerfully state that we have sold bullion from your mill at a rate of over eighty per cent. of assay value, and by additional care, can extract, and will extract over ninety per cent. of assay value."—Iron Trade Review.

## The Buffalo Hammer Co.

We call attention to the advertisement of the Buffalo Hammer Co. which appears in this issue of the MANUFACTURERS' RECORD. This concern is building up a splendid reputation for excellence of their goods, and can promise the trade the very best goods in the market. They have entered upon the manufacture of sledges, mason, spalling and drilling hammers, mauls, etc., also a complete line of hatchets. A new and complete outfit of the latest improved machinery enables them to turn out goods of the best grade, and at lowest prices. The Buffalo Hammer Co. have recently issued a handsomely illustrated catalogue and price-list of their solid cast steel hammers, which will be sent free to the trade upon application. Mention this paper and get a copy now.

THE Contractors' Plant Co., Buffalo, N. Y., are constantly in receipt of letters showing the popularity of their mining and quarrying apparatus. The manager of the Catawba Mine at Kings Mountain, N. C., writes: "The hoisters are doing exceedingly well and save us from buying engines. They attract considerable attention, and we will send you some customers." Every contractor, quarryman and mine owner in the South should have one of their catalogues, showing some valuable new devices just patented.

## Important.

The improvements of the Grand Union Hotel are simply elegant, and the hotel is always kept in perfect order. It is so convenient to all the depots that guests arriving by the Grand Central Depot have their baggage transferred to and from the Grand Union Hotel in five minutes, free of charge. Guests arriving by steamer or railroad, South, North, East or West, are conveyed to the Grand Union Hotel by the elevated railroad for five to fifteen cents, thereby saving $3 carriage hire. During the past year 110,000 people occupied the 613 rooms of the Grand Union Hotel at $1 and upwards per day, including of course its elegant suites of rooms for families on the European plan. The dining-rooms, restaurant, cafe, lunch and wine-rooms were supplied with the best at moderate prices. Families lived better at the Grand Union Hotel, and for less money, than at any other first-class hotel in New York.

## List of Patents.

The following Patents were granted to citizens of the Southern States, bearing date Aug. 31, 1886. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Colquhour, C. H., St. Andrew's Bay, Fla. Hydraulic gate or water-regulator.....348,266
Diener, Frederic, San Antonio, Tex. Ice machine.....348,192
Dulaney, J. T., near Belton, Tex. Cotton-packer.....348,490
Faulkner, J. J. & E. T., McMinnville, Tenn. Flour-bolt.....348,199
Fisher, J. H., Baltimore, Md. Fly and mosquito net.....348,388
Gregory, A. M., Newton Factory, Ga. Car-coupling.....348,519
Hensley, J. D., Rogers, Ark. Stump-extractor.....348,209
Knighton, C. J., Birmingham, Ala. Elevator and carrier.....348,329
Lay, Wm., Omaha, Tex. Steam-plow.....348,401
Light, Peter, and J. Luscher, Frankfort, Ky. Flue-broom.....348,469
Logan, J. B., Baltimore, Md. Umbrella.....348,223
McConnell, R. F., Estillville, Va. Heel for boots and shoes.....348,472
McKenna, E. W., Louisville, Ky. Air-brake attachment.....348,289
Moore, T. A. L., New Orleans, La. Sash-lock.....348,334
Platt J. A., Langley, S. C. Filling fork for loom stop-motions.....348,339
Prause, Reinhard, Bastrap, Tex. Folding lamp-shelf for pianos.....348,343
Robinson, G. W., Pensacola, Fla. Saw-mill carriage.....348,295
Rogers, J. A., Hartsell's, Ala. Sash-balance.348,500
Shellenberger, S. L., Dallas, Tex. Nut-lock.348,426
Shellenberger, S. L., Tyler, Tex. Brick-machine.....348,425
Stotlemeyer, Devolt, Hancock, Md. Agricultural fork.....348,300
Stribling, J. V., Westminster, S. C. Steering apparatus for traction engines.....348,538
Walsh, J. D., Covington, Ky. Extension book-case.....348,252
Webb, H. C., and J. A. Kellogg, Nashville, Tenn. Car-coupling.....348,363
Webster, J. W., Little Rock, S. C. Shovel-plow.....348,436
Wesson, Abner, Memphis, Tenn. Stock-muzzle.....348,438
Woodroffe, W. A., Mechunis river, Fla. Cutter-head.....348,367


# PATENTS
FOR INVENTIONS

(American and Foreign,) Trade Marks, etc., procured through the agency of

**Arthur C. Fraser & Co.**

TEMPLE COURT, NEW YORK CITY.

(Entrance 5-7 Beekman St.) Hand-book of information sent free to any address.


# Business Chances.

**☞ For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have good business openings that they wish to bring to public notice, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers superintendents, engineers, &c.**

**In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.**

**Parties advertising in this column must have replies sent to their own address, and not to care of Manufacturers' Record, unless stamps are sent for forwarding replies. Advertisements sent not in accordance with this requirement will not be inserted.**

WANTED—By a practical pressed brick maker, capital to manufacture brick in the South. Best place in the United States; brick sell at $7 00 to $16.00 per M. No limit to demand. C. B. Chase, Sheffield, Ala.

$10,000 WANTED for one or two years in a manufacturing concern in the South. Can give satisfactory security, either real estate or collateral. Will pay a good rate of interest. Address, A. T., care MANUFACTURERS' RECORD.

WANTED—Capital to build the Dennis Cotton Worm and Insect Destroyer—patent just allowed—or will sell the patent. It will kill the insects on all farm crops, and at the rate of 20 to 50 acres per day. Address, W. J. Dennis, Augusta, Ga.

FOR SALE AT A GREAT BARGAIN,—A planing mill and fixtures, with 30 horse-power automatic engine and boiler. This property is situated on the railroad, in the most go-ahead and thriving town in North Carolina, and is a splendid opening for an enterprising party. For particulars apply to Walter B. Gwyn, Asheville, N. C.

WANTED.—A practical foundry man, with 4,000 to 5,000 dollars, to take an interest in a machine and boiler works in a Southern city. A splendid opening for the right man. Address, Practical, care Baltimore MANUFACTURERS' RECORD.

TIMBER MERCHANTS—Will find Apalachicola, Fla., the finest opening in the South. Inexhaustible supply of yellow pine and cypress, which can be procured at cheap prices. Sticks measuring three and four thousand feet of merchantable lumber brought to market. Enquires answered by H. W. Johnston, Apalachicola, Fla.

ONE of the finest opportunities offered to party with small means who desires a half interest in an established sash, door, blind and moulding factory. The factory is now running to its fullest capacity, and orders far ahead are always on hand. Address J. B. Makepeace, Sanford, N. C.

OPPORTUNITY.—Riverside Station, Shenandoah Valley Railroad, Rockbridge county, Va., is a good point at which to locate any manufacturing enterprise working wood and iron material. Arrangements can be made for water power if desired. Address J. C. Shields, Staunton, Va.

A VALUABLE water power and 500 acres of land, on which is several deposits of very fine marl, which might be manufactured into fertilizer. For information address A. J. Potter, Town Creek Post-office, N. C.

WANTED—SITE FOR NEWSPAPER.—Two enterprising Northern newpaper men, one an editor of experience, the other a practical printer, would like to locate in some pushing Southern town where a daily, Sunday or weekly could be made to pay. Names of advantageous points solicited. Address C. C. Bradford, care of MANUFACTURERS' RECORD.

THE inventor of a corn planter wants money to patent it. Has used it himself four or five years, constantly improving on it. It will plant corn, peas and cotton and is a success. Will give an interest in it to anyone who will furnish money to have it patented. Address, George W. Moon, Sparta, Bienville Parish, La.

WANTED—A partner to take interest in fruit and nursery business. Address, E. E. Forsyth, Raleigh, N. C.

WANTED.—A practical paper manufacturer with some capital, to assist in running a paper mill for working refuse sugar cane fibre. Mill is erected and in running order, on a large sugar plantation, on railroad and river in Louisiana. Address K, Box 3,330, New Orleans, La.

MECHANICAL ENGINEER and draughtsman competent and reliable, experienced on machine tools, hoisting machinery, turbines, mining machinery, etc., desires situation. Address, Peta, P. O. Box 228, Torrington, Conn.

A MECHANICAL ENGINEER, Draftsman and Machinist, with eleven years practical experience in designing and construction, and capable of taking charge of shop is open for engagement; will go to any part of the South. Best of references. Address, M. E., care MANUFACTURERS' RECORD.

WOODEN PIPE MANUFACTURERS.—Mr. C. G. Viele, of Salisbury, N. C., wants to correspond with some foreman or skilled workman in a wooden smoking pipe factory.

READ.—Green Forest, Va., has two railroads, fine water power, great abundance of soft and hard woods, wool, iron and manganese ores. Before you decide where to build your factory or furnace, address B. C. Moomaw.

FOR SALE.—Two miles from the thriving town of Hickory, N. C., on the Catawba River, a water-power—two hundred horse; partially improved; 100 acres land; a good business chance for investment. For particulars, apply to Hall Brothers, Hickory, N. C.

WANTED—A partner with $2,000 or $4,000, to take interest in a sash, blind, furniture and handle factory. Splendid water dam and bay. Buildings nearly ready. Timber of all kinds at hand and cheap. Would prefer a practical wood-worker. Good market. No competition. Fine home. Address, A. P. Kelly, Tazewell C. H., Va.

WANTED—"A man thoroughly competent in general iron work and one capable of superintending a number of men. Address, W. T. Bradford, Springfield, Ohio.

WANTED—A Partner with $3,000 or $4,000 to take an interest in a sash and blind factory with planing mill attached. Good opening for a good man. Would prefer a first-class architect competent to superintend work. Address J. W. C., care MANUFACTURERS' RECORD.


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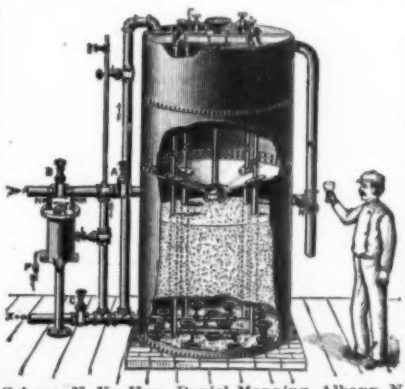

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**THE NEWARK FILTERING CO., Tribune Building, NEW YORK.**

# THE MARKETS.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, Sept. 8, 1886.

Business moves along in pretty much the same way as for several weeks past, and, while there is no great rush of trade, there is a fairly active movement, and merchants generally seem to be pretty well satisfied. The foreign exports of wheat continue on a pretty liberal scale, and the outlook is encouraging for large shipments this fall.

In manufactured iron there is no change, trade being only moderately fair at former prices. We quote:

| | | |
|---|---|---|
| Ref. Bar Iron, 1 to 6x⅜ to 1 | ₱ lb. | 1.80@ 2 c |
| " " 1 to 4½x1⅛ to 1 | " | 1.80@ 2 c |
| " " ¾ to 2, round and square | " | 1.80@ 2 c |
| Hoop Iron, 1⅛ wide and upward | " | 2½@ 2¾c |
| Band Iron, from 1⅛ to 6 in. wide | " | 2.30@ 2½c |
| Horseshoe Iron | " | 2.75@ c |
| Norway Nail Rods | " | 4¾@ 5 c |
| Black Diamond Cast Steel | " | 9 @ 10 c |
| Machinery Steel | " | 3½@ 4¼c |
| Spring Steel | " | 3¾@ 4 c |
| Common Horse Nails | " | 8 @ 9 c |
| Railroad Spikes, 5½x9-16 | " | 2¼@ 2¾c |
| Horse Shoes, ₱ keg | | 3 85 |
| Mule Shoes, " | | 4 85 |
| Steel Boiler Plate | " | 3⅛@ 3⅜c |
| Iron Boiler Plate | " | 2¼@ 4 c |
| Boiler Tubes | | 55% off list |

Pig iron is meeting with about the same demand as heretofore and, while standard brands are firmly held at former prices, makers of low grade foundry and mill irons appear more anxious to sell and show some disposition to shade prices. There is a good enquiry for No. 1 wrought scrap, but no increase in price. Old iron rails for immediate delivery are wanted, with prices rather stiffer and held at about $21 to $22, with buyers not disposed to give over $20 to $21.50. We quote as before, viz:

| | |
|---|---|
| Baltimore Charcoal Wheel Iron (all Baltimore ore) | $25 00@26 00 |
| Virginia C. B. Charcoal Wheel Iron | 25 00@26 00 |
| Anthracite, No. 1 | 18 00@19 00 |
| " " 2 | 16 00@17 00 |
| " " 3 | 15 00@16 00 |
| " Mottled and White | 13 00@14 00 |
| Old Rails | 20 50@21 00 |
| Old Steel Rails | 19 00@20 00 |
| No. 1 Wrought Scrap | 19 00@20 00 |
| Old Car Wheels | 15 00@16 00 |

# HARDWARE.

The hardware market does not improve as the season advances, and, while the volume of trade is pretty well maintained, the same cannot be said of prices.

Nails have weakened, and sales are being made at $2 to $2.10, according to quantity.

## Philadelphia Iron Market.

PHILADELPHIA, September 7, 1886.

There is more than usual stir to-day among the brokers in steel blooms and old rails. Very little business has been done compared to the amount of talking in offices and on the streets. There is a great deal of talk about what is coming in the way of business. Production continues at its highest limit. There is no trouble in getting orders and doing business. The only dissatisfaction is as to prices. There is not much chance of prices going up. In steel rails there are plenty of orders ahead. A few makers of special brands of iron also have plenty of business on their books. Outside of this things are rather quiet. At the same time everyone talks as though a great deal of business would be done within the next three or four weeks. A large amount of business is being done in pig iron, but very quietly. A 500-ton order is now looked upon as a good order. The bar men are not satisfied at the low prices, and are unable to advance them. Common iron is booked this week at $1.60, medium $1.70 and refined at $1.80 to $1.90. Nails continue to be in fair request at $2.10. There is a good demand for tank iron and ordinary plates. Orders were taken late last week for puddled bars at $28.50. Steel rails have been doing nothing. We are looking for heavy transactions in old rails, but holders and buyers are not able to come to terms very readily. Girders are 3 cts., angles 2 cts. There is a good deal of inquiry for boat iron. The ship yards are good buyers. The entire market is strong. Mill men complain of the prices for material and labor they are obliged to pay compared to the prices they realize.

## Cincinnati Iron Market Report

Specially reported by ROGERS, BROWN & Co., Pig Iron Commission.

CINCINNATI, September 6, 1886.

The market of the week just closed has been without features of special interest, it having settled down to a steady business of good volume, but not so large as the average of the past two months. There is an active call for deliveries upon orders already placed, which is taxing the carrying capacity of Southern railroads and some Northern ones, and indicating that the iron contracted for is going rapidly into consumption. Prices are firm, and a few well-known favorite brands are not offering their standard grades. Otherwise there is a liberal supply of everything but charcoal iron. Old rails are still scarce and the enquiry large, but it is thought prices on this material will not go higher. We quote on the cash basis as follows:

HOT-BLAST FOUNDRY.

| | | |
|---|---|---|
| Ohio and Southern Strong Coke | No. 1 | $16 00@17 00 |
| " " " " | No. 2 | 15 50@16 00 |
| " " " " | No. 3 | 14 50@15 50 |
| Ohio Soft Stonecoal, | No. 1 | 17 00@17 50 |
| " " " | No. 2 | 15 50@16 50 |
| Mahoning and Shenango Valley Coke, | No. 1 | 18 00@19 00 |

CHARCOAL IRON.

| | | |
|---|---|---|
| Hanging Rock, | No. 1 | $19 00@21 00 |
| " " | No. 2 | 18 00@20 00 |
| Tennessee and Alabama, | No. 1 | 17 50@18 50 |
| " " | No. 2 | 16 50@17 50 |

FORGE.

| | |
|---|---|
| Strong Neutral Coke | $14 00@15 00 |
| Mottled " " | 13 00@13 50 |
| Cold Short | 13 00@14 00 |

CAR WHEEL AND MALLEABLE.

| | |
|---|---|
| Southern Car-Wheel Iron | 20 00@23 00 |
| Hanging Rock C. B. | 25 00@27 00 |
| " " W. B. | 20 00@22 00 |
| Lake Superior Malleable | 22 00@23 00 |

Specially reported by E. L. HARPER & Co.

CINCINNATI, September 6, 1886.

Market continues firm and very active. We quote for cash on cars or wharf here:

| FOUNDRY. | | Cash. |
|---|---|---|
| Hanging Rock Charcoal, | No. 1 | $20 00@20 50 |
| " " " | " 2 | 19 00@19 50 |
| Southern Charcoal | " 1 | 18 75@19 75 |
| " " | " 2 | 17 75@18 75 |
| Strong Neutral Coke, | " 1 | 16 50@17 00 |
| " " " | " 2 | 16 00@16 50 |
| American Scotch, | " 1 | 17 00@17 50 |
| GREY FORGE. | | |
| Neutral Coke | | 14 50@15 50 |
| Cold Short | | 14 50@15 00 |
| CAR WHEEL AND MALLEABLE. | | |
| Hanging Rock, strictly cold blast | | 25 00@26 00 |
| Hanging Rock, strictly warm blast | | 21 00@21 50 |
| "Cranberry," N. Carolina Warm Blast. | | — —@23 50 |
| Amherst and Virginia Warm Blast | | 20 00@21 00 |
| Lake Superior Charcoal, all grades | | 23 00@24 00 |

## Louisville Iron Market.

Specially reported by GEO. H. HULL & Co., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, KY., September 6, 1886.

The market for pig iron continues firm with a fair volume of sales, though not as large as we hear reported in Cincinnati, St. Louis and some other Western markets. Most of the furnaces have withdrawn from the market entirely, and others only on several grades; we do not know of any furnaces that are in the market for all grades. Prices are very firm and with a stiffening tendency. We quote for cash in round lots as below:

PIG IRON.

| | |
|---|---|
| Southern Coke, No. 1 Foundry | $16 50@17 50 |
| " " " 2 " | 15 50@16 50 |
| " " " 2½ " | 14 50@16 00 |
| Hanging Rock Coke, No. 1 Foundry | 17 00@18 00 |
| " " Charc'l, " " | 19 00@21 00 |
| Southern Charcoal, No. 1 Foundry | 17 00@19 00 |
| Silver Gray, different grades | 14 00@15 50 |
| Southern Coke, No. 1 Mill, Neutral | 14 50@15 00 |
| " " " 2 " " | 13 50@14 00 |
| " " " 1 " Cold Short. | 13 50@14 00 |
| Southern Charcoal, No. 1 Mill | 16 00@17 00 |
| White and Mottled, different grades | 12 00@13 00 |
| Southern Car Wheel standard brands | 23 00@24 00 |
| " " other brands | 19 00@21 00 |
| Hanging Rock Cold Blast | 23 00@25 00 |
| " " Warm " | 19 00@21 00 |


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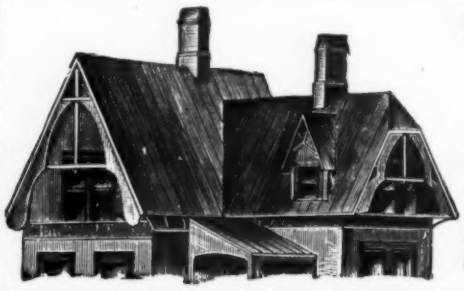
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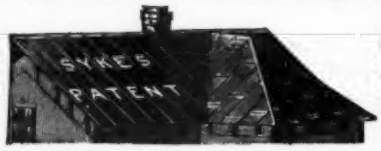

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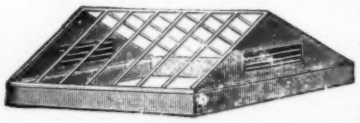
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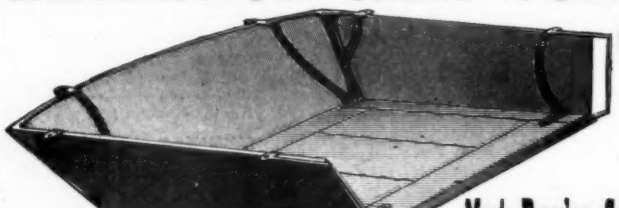
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Specially reported by W. B. BELKNAP & Co., Nails Wire, Iron, Hardware, Carriage and Wagon Goods.

LOUISVILLE, KY., September 6, 1886.

A steady volume of trade continues its gratifying proportions to the jobbers of Louisville. The statistics from the Board of Trade show a healthy increase over last year in the local movement of the great staples, and the future still seems full of encouragement.

Bar iron has scored a genuine advance of from $1 to $2 per ton. Most of the mills are asking the latter advance.

Nails.—Owing, we take it, to the facilities for greater production, notwithstanding the heavy demand, there has been no advance in nails, but, if anything, a weakish market.

Barb wire is jobbing in moderate though not extraordinary quantities. Prices are the same that have prevailed for a month or so. We quote:

| | | |
|---|---|---|
| Bar Iron | 1 80 | @1 90 |
| Cresent Steel | 10 | @ 12 |
| Plow Steel slabs | 2 50 | @2 75 |
| No. 27 Sheet | 2 90 | @3 10 |
| Galvanized sheet, best | 50 | @ 55% |
| Galvanized Iowa barb wire | 4 50 | @4 75 |
| Burden Shoes | 4 10 | @4 15 |
| Juniata Shoes | 3 75 | @3 85 |
| Carriage Bolts | | 75& 5% |
| Steel nails | 2 25 | @2 35 |
| Iron Nails | 2 15 | @2 25 |
| Rope, Sisal | 9 | @ 9½ |
| Rope, Manilla | 12½ | @ 13 |
| Screws, American Screw Co's list | 75 | @ 10% |
| Axes | 6 75 | @7 00 |
| Cross cut saws, wide, per foot | 26 | @ 33cts. |
| Cross cut saws, narrow, per foot | 21 | @ 23cts. |

With concessions to large or wholesale buyers.

## Chicago Iron Market.

Specially reported by ROGERS, BROWN & Co. W. W. BACKMAN, Resident Agent.

CHICAGO, September 6, 1886.

Last week's report of the iron market covers very closely the situation this week. Dealers report a steady run of moderate sized orders distributed between strong and soft irons. The Western Agricultural Works are not yet through with their contracts and are still placing orders. The jobbing foundries are buying mostly from hand to mouth. Stocks in buyers' hands are small; shipments continue very large, and there are no accumulations at the furnaces to speak of. Southern charcoal iron has about disappeared from this market on account of getting higher prices elsewhere. Southern coke iron is very scarce for the same reason. We quote for cash f. o. b. Chicago:

| | | |
|---|---|---|
| **CHARCOAL FOUNDRY.** | | |
| Lake Superior | $19 00 | @20 00 |
| Southern | 18 50 | @20 00 |
| Hanging Rock | 21 00 | @22 00 |
| **COKE AND STONE COAL FOUNDRY.** | | |
| Ohio (Hanging Rock) Softeners No. 1 | 18 50 | @19 50 |
| " Blackband " " | 19 00 | @20 50 |
| " Jackson county " " | 18 50 | @19 00 |
| " Lake ore and cinder " " | 17 50 | @19 00 |
| Southern Coke, No. 2 | 16 50 | @17 50 |
| " " No. 2½ | 16 00 | @17 00 |
| **CAR WHEEL AND MALLEABLE.** | | |
| Lake Superior | 19 00 | @21 00 |
| Standard Southern | 21 00 | @23 00 |
| Hanging Rock, cold blast | 28 00 | @— — |
| " " warm blast | 20 00 | @22 00 |
| **OLD MATERIALS.** | | |
| Old Rail, American | 21 50 | @— — |
| Old Wheels | 16 00 | @16 50 |

## St. Louis Iron Market.

Specially reported by ROGERS, BROWN & Co., Gay Building, 204 N. 3rd street, St. Louis. W. H. SHIELDS, Manager.

ST. LOUIS, September 6, 1886.

The pig iron market has settled down to uniform tone that is satisfactory and encouraging, but without much inflation. Low prices have the effect to increase consumption, which higher prices would tend to check, and all parties begin to feel that a large steady business on a nearly uniform basis of prices, is better than fluctuations of trade. Demand runs mostly to Ohio and Southern irons. The latter continue scarce at the advanced price already noted. The tendency of the leading furnaces for the time seems to run to mill rather than foundry grades. Some Alabama furnaces are represented to be three or four months behind contract deliveries on foundry orders. The car shops are full for fully 6 months to come. Another order for 800 cars for one of the Western roads is to be let within the next few days. The outlook taken as a whole in all branches is very encouraging. We quote:

| | | |
|---|---|---|
| **HOT-BLAST CHARCOAL.** | | |
| Missouri | $17 00 | @18 00 |
| Southern | 17 50 | @18 00 |
| Ohio | — — | @— — |
| **COKE AND COAL.** | | |
| Missouri | — — | @— — |
| Southern No. 1 | 17 00 | @18 00 |
| Southern No. 2 | 16 25 | @17 00 |
| Southern No. 2½ | — — | @— — |
| Ohio Softeners | 17 00 | @20 00 |
| **MILL IRONS.** | | |
| Missouri | 15 00 | @16 50 |
| Southern | 14 75 | @14 75 |
| **CAR-WHEEL AND MALLEABLE IRON.** | | |
| Southern | 20 00 | @25 00 |
| Lake Superior | 21 00 | @23 00 |
| **MISCELLANEOUS.** | | |
| Old Wheels | 16 00 | @16 50 |
| Old Rails | 20 00 | @21 00 |
| Connellsville Coke, East St. Louis | — — | @ 5 65 |

## Chattanooga Iron Market.

Specially reported by LOWE & TUCKER, Brokers and Commission.

CHATTANOOGA, TENN., Sept. 6, 1886.

The week has passed without any particular event to mention in manufacturing or mercantile circles. The disturbances that have occurred have been confined exclusively to causes originating from natural origin, and have not affected in the least the prosperous tide of business movements, which are strengthening, both in volume and prosperity. The movements in pig iron are without particular events, and the furnaces have no trouble in placing their products at prices somewhat in advance of prices ruling in the past. The Roane Iron Co. expect to be turning out steel rails some time during the month of November, which event will be worthy of considerable note among Southern industries. Prices remain about the same as last. We continue quotations, viz:

| | | |
|---|---|---|
| No. 1 Foundry | $14 50 | @15 50 |
| No. 2 Foundry | 13 50 | @14 00 |
| American Scotch | 13 50 | @14 00 |
| Gray Forge | 12 00 | @13 00 |
| Car-Wheel Iron | 23 00 | @25 00 |
| Ores, Red and Brown | 1 50 | @ 2 25 |
| Furnace Coke | 2 00 | @ 2 30 |
| Nails, car-load lots, 30 days | — — | @— — |
| Bar Iron, per 100 lb | — — | @ 1 75 |
| Old Rails | 18 00 | @19 00 |
| Old Wheels | 13 00 | @— — |
| Wrought Scrap, No. 1 | — — | @— 70 |
| " " No. 2 | — — | @— 50 |
| Cotton Tie Clippings | — — | @— — |
| Cast Scrap | — — | @— — |
| Railroad Splices | — — | @ 1 85 |
| Railroad spikes | — — | @ 2 25 |
| Light Steel Rails, long ton | — — | @— — |
| Barb wire—Cambria link | — — | @— — |
| Barbed wire—four point galvanized | — | @— — |
| Barb ware | — | @— — |

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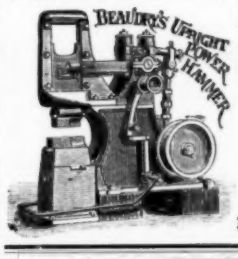


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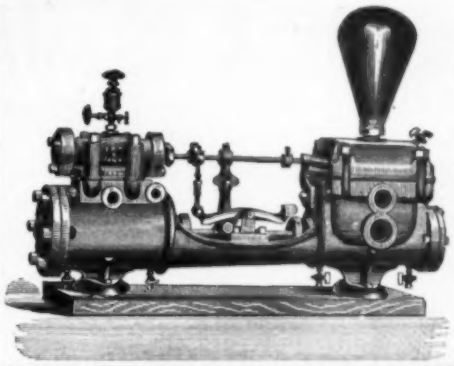
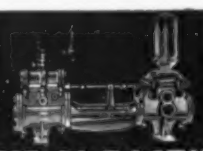


The STANDARD Steam Pumps. From KNOWLES' PATENTS with KNOWLES' VALVE MOTION, are the STRONGEST and MOST DURABLE Pump for every duty. MINERS, BREWERS, MANUFACTURERS *IN THE SOUTH* write for Prices and Descriptive Catalogue to WHEELER & TAPPAN, [Sole Manufacturers,] Office, 88 WEST LAKE STREET, CHICAGO, Ill., U. S. A. Works, 49, 51, & 53 N. Jefferson street.

STEAM PUMPS



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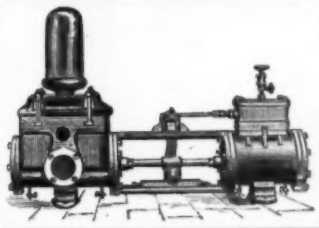
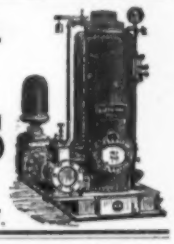
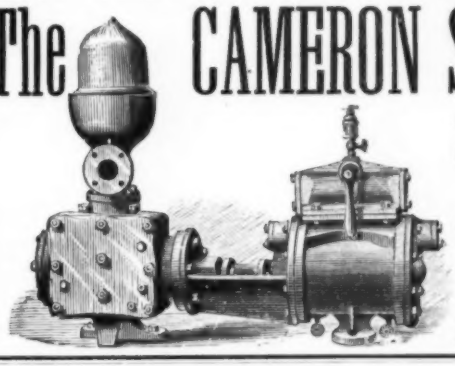


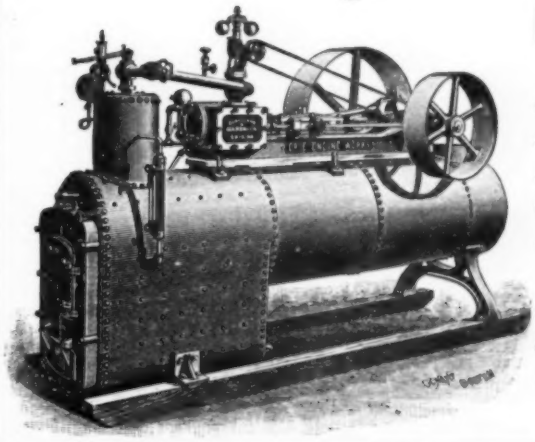
BLAKESLEE MANFG. CO. 67 WASHINGTON ST., DU QUOIN, ILL. STEAM PUMPS FOR ALL PURPOSES. SEND FOR CATALOGUE.



The CAMERON STEAM PUMP Is the Standard of Excellence AT HOME AND ABROAD. THE A. S. CAMERON Steam Pump Works, Foot of East 23d St., New York.



*Erie Engine Works.* Cleveland & Hardwick, ERIE, PA., U. S. A.



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$5 to $10 a DAY EASILY MADE by GOOD CANVASSERS. THE DOMESTIC CLOTHES TONGS COMBINATION. For lifting hot clothes out of boiling water while washing. For holding cloth or sponge while cleaning windows, walls, ceilings, etc., thus avoiding climbing outside of windows and the use of step-ladders. For placing or removing picture-cords, window-curtains, etc. Price low. Sells on sight. Every family wants one. DOMESTIC NOVELTY CO., 162 W. 4th st., CINCINNATI, OHIO.

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Largest Manufacturers of Tackle Blocks in the World.

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TACKLE BLOCKS.

Improved Self-Adjusting Roller Bushed Iron Sheave.

Send for the Celebrated STAR BRAND.

Improved Harcourt Patent Block.

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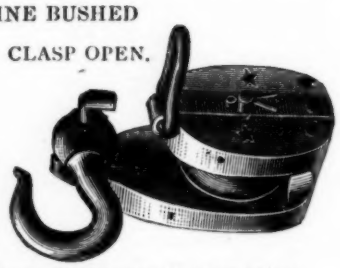

Improved Self-Locking Link Snatch Block.

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## Bobbins, Spools, Skewers & Shuttles,

*of All Kinds and Descriptions. Complete Line of*

## Wooden Supplies for Cotton and Woolen Mills.

A Southern Enterprise, with new Mills, fully equipped with all Modern Machinery, and all work guaranteed. Mention this Paper in corresponding.

J. C. ANGIER, President.

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# COTTON MILL SPECIALTIES.

Roller Covering, Loom Pickers and Strapping.

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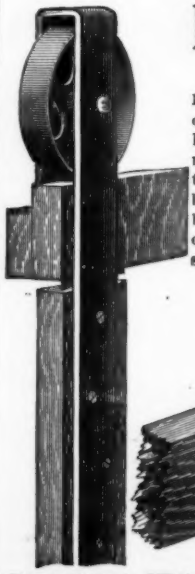
# CRONK'S WROUGHT IRON

## Barn Door Hanger & Stay Roller.



In offering to the trade of 1886 our Celebrated **Wrought Iron Hangers and Stay Rollers,** special attention is called to our **Iron Clad Track** in connection with our Hangers. It is made complete, only requiring hammer and nails to attach it to the building. We make the broad claim that whoever uses our Hangers and Iron Clad Track has the best device known for sliding doors. These hangers never break; can not get off the track, and work so easy that they can be operated by a child. Every pair guaranteed to give satisfaction. For sale by hardware dealers generally.

CRONK HANGER CO., ELMIRA, NEW YORK.

# HARDWARE.

## Baltimore WHOLESALE Prices.

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Eagle and Vulcan.....℔ lb. 10 c. dis 20%
Wright's.....9¾c
Armitage's Mouse Hole.....8½c
Trenton.....10¼c
Wilkinson's.....10½c

**AUGERS AND BITS.**

Conn. Valley Mfg. Co. } extra, 60&10 %
Douglass Mfg. Co. } No. 1, 60&10&5 %
Ives } 
Cook's Douglass Mfg. Co.....dis 60&10 %
Griswold.....dis 50&10 %
Patent Solid Head.....dis 25 %
Russell Jennings' Auger, Dowell, Machine-Dowel and Hand Rail Bits.....dis 10&10&10 %
Ives' "Jennings" Bits.....dis 40&10&10 %
Expansive Bits, Clark's small, $18; large, 26..dis 25 %
Expansive Bits, Ives'.....$20@30, dis 33⅓ %
Expansive Bits Blake's.....$20, dis 40 %
Hollow Augers, Ives'.....dis 25 %
Hollow Augers, Douglass'.....dis 25&10 %
Hol. Aug., Honney's Adjust., ℔ doz $48, dis 25&10 %
Hol. Aug., Stearns' Adjust., ℔ doz $48, dis 20&10 %
Hol. Aug., Ives' Expansive, each $4.50, dis 30&10 %
Hol. Aug., Universal Expansive, each $4.50, dis 20 %
Wood's.....dis 25 %
Gimlet Bits.....$7.50 ℔ gross, dis 50 %
Gimlet Bits, Diamond.....℔ doz $1.25, dis 40 %
Double Cut Gimlet Bits, Shephardson's.....dis 40 %
Double Cut Gimlet Bits, Douglass'.....dis 40 %
Double Cut Gimlet Bits, Ives'.....dis 50 %
Morse's Bit Stock Drill.....dis 40&10 %
L'Hommedieu's Ship Augers.....dis 15 %

**AWL HAFTS.**

Sewing Brass Ferrule.....$3.50 ℔ gross—dis 40&10 %
Patent Sewing, Short.....$11 ℔ gross—dis 40&10 %
Patent Sewing, Long.....$1.20 ℔ doz. net
Patent Peg, Plain Top.....$10 ℔ gross—dis 40&10 %
Patent Peg, Leather Top...$12 ℔ gross—dis 40&10 %

**AWLS, BRAD SETS, &C.**

Awls, Sewing, Common.....75c. to $1
Awls, Shouldered Peg.....75c to $1
Awls, Patent Peg.....50c to $1.50
Awls, Shouldered Brad, ℔ gross $2.70—dis 25&10 %
Awls, Handled Brad.....$7 ℔ gross—dis 25&10 %
Brad Sets, Aiken's.....℔ doz. $12—dis 45&10 %
Brad Sets, No. 42, $10.50; No. 43, $12.50....dis 70 %
Brad Sets, Stanley's Exc.' No. 1, $9.60. dis 30&10 %
Brad Sets, Stanley's Exc.' No. 2, $4.80. dis 30&10 %
Brad Sets, Stanley's Exc.' No. 3, $7.80. dis 30&10 %

**AXES.**

Collins & Co.....$7.25; beveled..$7.75
Cohoes Mfg. Co.....$7.25; beveled..$7.75

Lippincott or Mann's.

Single Bit, 4½ to 5½ and under.....℔ doz. $6.50 net
Single Bit, 4½ to 6 and over.....℔ doz. $7.00 net
Single Bit, beveled.....50c. doz. advance
Double Bit, 4½ to 5½ and under....℔ doz. $12.00 net
Double Bit, 4½ to 6 and over.....℔ doz. $13.00 net
Double Bit, beveled.....$1.00 ℔ doz. advance
Second quality Axes.....50 cts. less than above

**AXLES.**

Sheldon & Co., iron.....55% off
" " " steel.....55% off
Axle Grease—Frazer's.....℔ lb. 6c.

**BALANCES.**

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Hand, White Metal.....dis 60 %
Hand, Silver Chime.....dis 20&10 %
Hand, Globe (Cone's Patent.....dis 25&10 %
Gong, Abbe's.....dis 20&10 %
Gong, Yankee.....dis 30&10 %
Gong, Barton's.....dis 30&10 %
Leon Reading.....dis 25&10&10 %
Pull, Brook's.....dis 50&10 %
Crank, Taylor's.....dis 25&10 %
Lever, Sargent's.....dis 55&10 %
Bloomfield.....dis 20 %
Lever, R. & E. M. Co's.....dis 45&10&2 %
Call.....dis 25 %
Cow, Common Wrought.....dis 55&10 %
Cow, Western, Sargent's List.....dis 55&10 %
Cow, Kentucky, Sargent's List.....dis 55&10 %
Cow, Moore's or Dodge's, Genuine Ky., new list:
Nos. 0 1 1½ 2 3 5 5 6 Hog } dis. 70
$12 $10 $9 $8 $7 $4 $3.50 $2.50 $5 }
Cow, Texas "Star".....dis 40 %

**BELLOWS.**

Blacksmith's Common.....dis 50&10 %
Molder's.....dis 25 %
Hand Bellows.....dis 25 %

**BLIND FASTENERS.**

Francis.....dis 20 %
Mackrell's.....℔ doz pairs $1.00, dis 10 %
Van Sand's Screw Pattern.....$3 ℔ gross, net
Van Sand's Old Pattern. 1¼, $8; 1½, 8.50 ℔ gro. net
Merriman's.....new list, net
Zimmerman's, 10¾ in.....℔ gross $33.00
Zimmerman's, 9 in.....℔ gross $30.00

**BLIND STAPLES.**

Barbed, ½ in. and larger.....℔ ℔ 11c net
Barbed, ⅝ in.....℔ ℔ 13c net

**BLOCKS.**

Penfield Blocks } dis 50%
Bagnall & Loud }

**BOLTS.**

Cast Iron Barrel Shutter, &c.....dis 55&10 %
Cast Iron Chain (Sargent's list).....dis 60&10 %
Wrought Barrel.....dis 55&10 %
Wrought Square.....dis 55&10 %
Wrt. Shutter, all Iron, Stanley's list.....dis 50&10 %
Wrt. Shutter, Brass Knob, Stanley's list..dis 50&10 %
Wrought Shutter, Sargent's list.....dis 55&10 %
Wrought Sunk Flush, Sargent's.....dis 65&10&10 %
Wrought Sunk Flush, Stanley's.....dis 40&10 %
Wrought B. K. Flush, Stanley's.....dis 50&10 %
Carriage and Tire, Common, new list.....dis 80 %
Carriage and Tire, Philadelphia Pattern.....dis 80 %
Carriage Bolts, Clarke's.....dis 75&10 %
Norway.....dis 75&10 %
R. B. & W. Carriage (old list).....dis 65 %
Tire, American Screw Co's., Phila.....dis 80 %
Tire, "Bay State".....dis 65&10 %
Eagle Philadelphia Tire Bolt.....dis 82½ %
Stove.....dis 70 %
Plow.....dis 60&10 %
Machine.....dis 75 %
Bolt Ends and Lag Screws.....dis 75 %

**BORAX.**

12c ℔ ℔ net.

**BRACES.**

Q. S. Backus.....dis 50 %
Barber's.....dis 40&5 %
Spofford's Patent.....dis 50&5 %
Ive's Patent Braces.....dis 50 %
Common Ball (American).....dis 55 %
Amidon's.....dis 50 %

**BORING MACHINES—WITHOUT AUGERS.**

Sweet & Clark upright, 3.60 angular.....4.40 net
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Shelf, fancy.....dis 55&10 %

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Union Nut Co.....dis 55 %
Sargent's.....dis 60&10 %
Humason, Beckley & Co's.....dis 60&10 %

**BUTTS.**

Wrought Brass.....dis 70 %
Cast Brass, Fast Joint.....dis 20&10 %
Cast Brass, Loose Joint.....dis 10&10 %
Fast Joint, Narrow.....dis 60 %
Fast Joint, Broad.....dis 60 %
Loose Joint.....dis 70 %
Loose Joint, Japanned.....dis 70 %
Loose Joint, Jap, with Acorns.....dis 70 %
Parliament Butts.....dis 70 %
Mayer's Hinges.....dis 70 %
Loose Pin, no Acorn.....dis 70 %
Loose Pin, Acorns.....dis 70 %
Loose Pin, Acorns, Japanned.....dis 70 %
Loose Pin, Acorns, Jap'd, Plated.
Tips.....dis 70 %

*Wrought Iron.*

Fast Joint, Narrow.....dis 65%
Fast Joint, Lt. Narrow.....dis 65%
Fast Joint, Broad.....dis 65%
Loose Joint, Broad.....dis 65%
Table Butts, Back Flaps, &c.....dis 65%
Inside Blind, Regular.....dis 65%
Inside Blind, Light.....dis 65%
Loose Pin, Wrt.....dis 65%
Loose Pin, Light.....dis 65%
Spring Hinges—
Geer's Spring and Blank Butts.....dis 30 %
Hart Manufacturing Co.....dis 60&10 %
American Spring Hinge Co's.....dis 25 %
Gem Spring Hinges.....dis 25 %
Blind Butts, Shepard's, Nos. 50 and 60.....dis 70 %
Blind Butts, Shepard's, No. 050.....dis 70&5 %
Blind Butts, Shepard's No. 75.....dis 70&10 %
Blind Butts, Lull & Porter.....dis 80 %
Blind Butts, Huffer.....dis 50&10 %
Blind Butts, Clark's, Nos. 1, 3, 5.....dis 80 %
Standard Lull & Porter.....dis 75&10 %

**BOW PINS.**

Humason, Beckley & Co's.....dis 55&5 %
Sargent & Co's.....$19.70 and 21.40; dis 60&10 %
Hotchkiss.....dis 25 %

**BUTCHER'S CLEAVERS.**

Humason & Beckley Mfg. Co.....dis 25 %
Bradley's.....dis 25 %
Beatty's.....dis 25&5 %

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| $16.50 | 19.00 | 21.50 | 24.00 | 27.00 | 30.00 | 33.50 | 36.50 |

**CAN OPENERS.**

American.....℔ gross $7.50, dis 10 %
New Idea.....$15.00 gross
No. 4, French.....℔ doz $2.25, dis 55 %
No. 5, Iron Handle.....℔ gross $7.50, dis 10 %
Sardine Scissors.....℔ doz $7.00, dis 55 %
Sprague, No. 1, $2; No. 2, 2.25; No. 3, 2.50; dis 50&10 %
Universal.....℔ doz $3.00, dis 33⅓ %

**CAPS, PERCUSSION, ℔ 1,000.**

U. M. C., F. C. trimmed.....50c } dis 10&10 %
U. M. C., F. L. ground.....70c }
U. M. C., Cen. fire ground.....70c } dis 10&5 %
U. M. C., Double W. Proof.....$1.40 }
G. D. & S. B.....33c. dis 10 %
E. B. 1-10, Eley's.....60c
Musket, in 1-10's.....55c
Hicks Ground Edge in Brass Boxes.....55c

**CARTRIDGES.**

Rim.....dis 60 %
Central Fire, pistol size.....dis 40 %
" " Military.....dis 1.60 %
B. B. Caps, Round Balls.....1.45
" Swaged Conical.....1.75

**NEW LIST ON CARTRIDGES.**

Rim-fire, 22 short.....$ 5 long.....$ 6.00
" 32 " .....10 " .....15.50
" 38 " .....18 " .....18.00
" 41 " .....15 " .....17.50
Central Fire—32, $11.00; 38, $13.50; 41, 15.00; 44, $19.

**CARDS.**

Horse and Curry, new list, July, 1881.....dis 10 %
Cotton, new list, July, 1881.....dis 10 %
Wool, new list, July, 1881.....dis 10 %

**CARPET STRETCHERS.**

Cast Steel, Polished.....℔ doz $5.00, dis 30 %
Cast Iron, Steel Points.....℔ doz $2.00, dis 50 %
Bullard's.....dis 25 %

**CASTERS.**

Bed.....dis 55 %
Plate and Shallow Socket.....dis 55 %
Deep Socket.....dis 25&10&10 %
Martin's Patent (Phœnix).....dis 25 %

**CATTLE LEADERS.**

Humason, Beckley & Co's.....dis 60&10 %
Sargent's.....dis 60&10 %
P. S. & W.....dis 25&10 %

**CHAIN.**

German Halter and coil Chain.....dis 50&10 %
Trace, Breast and Fancy.....dis 60 %
Oneida Halter Chain (old list).....dis 45&5 %
Galvanized Pump Chain.....℔ ℔ 6c net
Jack Chain, Iron.....dis 70 %
Jack Chain, Brass.....dis 60&10&10 %

**CHALK.**

White.....℔ gross 60c net
Red.....℔ gross 85c net
Blue.....℔ gross $1.00 net
White Crayons.....℔ gross 9c net

**COTTON LINES.**

Cotton Fish Lines.....dis 33⅓ %
Cotton Chalk Lines, 20 feet:

| Nos. 11, | 13, | 15, | 17, | 20, | dis 40 % |
|---|---|---|---|---|---|
| 3.20. | 3.60. | 4.00. | 4.50. | 5.25. | dis 40 % |

**CHISELS.**

Socket Framing, Crossmans } dis 65&5 %
Socket Firmer, Crossmans }

| | No. 1. | Extra. |
|---|---|---|
| Socket Framing & Firmer | 75&5 | 75% |
| Socket, Douglass | 75&5 | 75% |
| Socket, Ohio Tool Co | 75&5 | 75% |
| Socket, Peck, Stone & Wilcox | 75&5 | 75% |
| Socket, Corner | | 75% |

Tanged Firmers, Douglass'.....dis 40&45 %
Tanged Firmers, Butcher's.....$5.00 to $6
I. Merrill's Socket and Framing Chisel...dis 65&10 %

**CLAMPS.**

Iron, Screw, Eagle.....dis 50 %
Iron, Adjustable, Stearns'.....dis 20&10 %
Iron, Cabinet, Sargent's.....dis 65&10 %
Iron, Carriage maker's, Carr & Crawley.....dis 25 %

**CLIPS, AXLE.**

Norway or Best.....dis 60&5 %
Superior.....dis 45&5 %
Conestogo.....dis 60&10 %
Coal Hods—Griffiths'.....dis 40 %

**COCKS, BRASS.**

Racking, new list.....dis 55&10 %
Globe, new list.....dis 55&10 %
Plain Bibbs.....dis 55&10 %
Ale and Beer, new list.....dis 55&10 %

**COFFEE MILLS.**

Parker's.....dis 45 %
Wilson's.....dis 40&10 %
Logan & Strobridge.....dis 45 %
Enterprise Mfg. Co.....dis 25 %

**COMPASSES, DIVIDERS, &C.**

Compasses.....dis 60&10&10 %
Calipers.....dis 60&10&10 %
Dividers.....dis 60&10&10 %
Cook's Pencil.....dis 10 %

**COOPERS TOOLS.**

Bradley's.....dis 15@20 %
Barton's.....dis 20 %


(Awarded First-Class Medal at New Orleans.)

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With STEEL FACED or SOLID STEEL SLIDING JAW, and ADJUSTABLE ATTACHMENTS. Superior in Make, Grip, Strength and Durability, and more economical in Time and Labor than any other Vise. Jewelers, Machinists in general, and Car and Locomotive Builders in particular, will find them especially adapted to their need. Also STEPHENS' PATENT PLANER CHUCKS. Sold by hardware, machinery and tool dealers. Send for descriptive circular and price-list.

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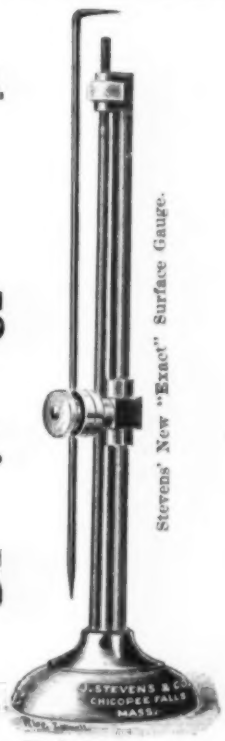
AND

FIREARMS.




Stevens' New "Exact" Surface Gauge.

*Our Shooting Gallery Rifle*

SEND FOR ILLUSTRATED CATALOGUE. IS THE FAVORITE EVERYWHERE.

CAREW'S ❋ PATENT ❋ WIRE ❋ CUTTER.

These goods have recently been greatly improved. They are now made throughout of

FORGED STEEL.

The advantage of this cutter is seen at a glance. The adjustable jaws are its main feature. These are made of the best tool steel, and are brought to a keen cutting edge before being tempered. The cutting quality is unsurpassed. Whenever they become dulled by use, they can easily be removed, by driving from the end showing price-mark, ground, and as easily replaced. This may be repeated as often as expedient; or they can be replaced by duplicate jaws, thus obviating the necessity of purchasing new cutters. **Five sizes 6, 8, 10, 12 and 14 inch.** If your merchant does not keep them, address

**M. W. ROBINSON. Sole Agent, 79 Chambers St., N. Y.**

To Secure SOUTHERN TRADE
*ADVERTISE IN THE*
MANUFACTURERS' RECORD.

CROW BARS.

Cast Steel.....℔ lb 4c
Iron, Steel Points.....℔ lb 3½c

CURLING IRONS, &c.

⅛, ⅝, ¾ in., $1.80, 2.00, 2.50.....dis 10 %
Curling Tongs.....℔ doz $3.65, dis 10 %
Pinching Irons.....℔ doz $7.50, dis 20 %

CURRY COMBS.

Fitch's new list.....dis 50 %
Hotchkiss, Novelty, new list, July, 1880.....dis 25 %
Hotchkiss, Excelsior Superior Champion.....dis 25 %
Lawrence, "Perfect".....dis 25&10 %
Rubber.....℔ doz $10.00, dis 25 %
Sweet & Clarke.....dis 50 %
Lusters.....dis 25 %

CURTAIN PINS.

Silvered Glass.....net
White Enamel.....net

CUTLERY.

Association (Table).....net
Naugatuck Cutlery Co.....list net
Excelsior Knife Co.....net
Wilson's Butcher and Shoe Knives.....dis 30 %
Ames' Shoe Knives.....dis 15 %
Wm. Rogers Mfg. Co., Plated Cutlery.....Net

DOG COLLARS.

Embossed Gilt.....dis 20 %
Leather.....dis 25 %
Brass.....dis 25 %

DOOR SPRINGS.

Torrey's Rod, regular size, ℔ doz., $3..dis 40&10 %
Gem (Coil):
No. 1, Large Japanned.....℔ doz $4.00 } dis 40 %
No. 2, Medium Japanned....℔ doz 2.75 } dis 40 %
No. 3, Small Japanned.....℔ doz 2.00 } dis 40 %
No. 4, ("Shoo Fly") Screen door size, 1.50 } dis 50 %
No. 5, Screen door size.....2.00 } dis 50 %
No. 6, Medium.....2.75 } dis 50 %
No. 7, Large.....4.00 } dis 50 %
Standard—10 doz $1.25; 9 doz $1.75.....dis 60&10 %
8 doz 2.50; 6 doz $3.50.....dis 60&10 %
Hercules.....dis 50&10 %

DRAWING KNIVES

Ohio Tool Co.....dis 60&10 %
Crossman's No. 1.....dis 65&5 %
Nobles Mfg. Co.....dis 15 %
Bradley's.....dis 35 %
Adjustable Handle.....dis 20 %
P. S. & W.....dis 70&10 %
Douglass.....dis 75 %

DRILLS AND DRILL STOCKS.

Blacksmiths'.....each, $2.50, dis 10 %
Blacksmiths' Self-Feeding.....each, 7.50, dis 20 %
Breast, P. S. & W.....dis 20&10 %
Breast, Wilson's.....dis 20 %
Breast, Millers Falls.....each, $3.00, dis 25 %
Breast, Bartholomew's.....each, $2.50, dis 25&10 %
Wilson's Drill Stocks.....dis 10 %
Automatic Boring Tools.....each, $2.25, dis 20 %
Manneer Drill Mfg. Co's—
Model Bench Drill.....$10.00, dis. 50 %
XXX Post Drill.....$28.00, dis. 50 %

EGG BEATERS.

Dover.....℔ doz $2.50, dis 2 %
Medallion.....gross, $10.00
Victoria.....gross, $10.00

EMERY AND EMERY PAPER.

Regular numbers.....℔ lb 6c
Flour and F. F.....℔ lb 4c
B. & A. Emery Paper.....dis 20 %

ENAMELED AND TINNED WARE.

Kettles.....dis 55 %
Sauce Pans.....dis 35 %
Tinned Sauce Pans.....dis 35 %
Escutcheon Pins—Brass.....dis 50 %

ESCUTCHEONS.

Door Lock.....Same discounts as Door Locks
Brass Thread.....dis 25 %
Wood.....dis 25 %

FAUCETS.

Fenn's.....dis 40 %
Fenn's Cork Stops.....dis 33⅓ %
Star.....dis 55&10 %
Frary's Patent Petroleum.....dis 20&10 %
West's Patent Key.....dis 45 %
Anchor Lock.....dis 45 %
Metallic Key, Leather Lined.....dis 60 %
Cork Lined.....dis 70 %
J. Sommer's Best Metallic Key.....dis 40 %
J. Sommer's Cork Lined, 1st quality.....dis 50 %

FILES.

E. M. Boynton's.....new list, dis 25 %
Western File Co.....dis 45 %
Butcher's.....$4.50 to £
Moss & Gamble.....$4.50 to £
H. Disston & Sons (new list).....dis 40 %
Heller Bros.' Horse Rasps.....dis 30&10&5 %
Nicholson.....dis 55&10 %
New American.....dis 50&10 %
Union File Co.....dis 45 %
Stubs, new list.....$7.50 to £, 25 % off

FLUTING MACHINES.

Knox, 4½-inch Rolls.....$3.50 each } .....dis 35 %
Knox, 6-inch Rolls.....$4.00 each } .....dis 35 %
Knox, 8-inch.....$6.50
Eagle, 3½-inch Roll.....$2.15, dis 35 %
Eagle, 5½-inch Roll.....2.85, dis 35 %
Crown, 4½-in., $3.50; 6, $4.00; 8, $6.50 each...dis 35 %
Crown Jewell.....6-in., $3.40 each....dis 35 %
American, 5-in., $3; 6-in., $3.40; 7-in., $4.50 each dis 35 %
Domestic Fluter.....$1.50 each, net
Geneva Hand Fluter, White Metal, ℔ doz $12 dis 25 %
Crown Hand Fluter, Nos. 1, $15; 2, $12.50;
3, $10.50; 4, $8.25 ℔ doz.....dis 35 %
Combined Fluter and Sad Iron, ℔ doz $15.00, dis 30 %

FORKS.

Lawson & Brenizer.....dis 60 %
Remington.....dis 50&10 %
Sheble & Fisher.....dis 50&10 %

FRY PANS.

Burnished list as follows.....dis 60&10&10 %

| No | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| ℔ doz | $3.00 | 3.75 | 4.25 | 4.70 | 5.25 | 6.00 | 7.00 | 8.00 | 9.00 |

GAUGES.

Marking, Stanley's.....dis 50&10&10 %
Marking, Chapin's.....dis 55&10&10 %
Wire.....dis 10&10 %
Wire, Disston's.....dis 20 %
Wire, Wheeler, Madden & Co.....dis 10 %

GIMLETS.

Nail and Spike.....dis 40 %
"Eureka" Gimlets.....dis 50 %
"Diamond" Gimlets.....dis 50 %
Double Cut, Shepardson's.....dis 50 %
Double Cut, Hartwell's.....dis 50 %
Double Cut, Ives'.....dis 50 %
Double Cut, Douglass'.....dis 33⅓ %
"Reel".....℔ gro. $12.00 dis 25 %

GLUE POTS.

Tinned and Enameled.....dis 35 %
Family, Howe's "Eureka".....dis 25 %
Family, L. F. & C.'s "Handy".....dis 30 %

GRINDSTONE FIXTURES.

Sargent's Patent.....dis 70&10 %
Reading Hardware Co.....dis 25&10 %

GUN WADS.

Eley's B. E. wads, 11 upwards.....$1.75
" " " 9 and 10.....2.00
" " " 7 " 8.....2.25
" P. E. " 11 upwards.....2.90
" " " 9 and 10.....3.65
" " " 7 " 8.....4.45

HAMMERS.

Maydole's.....dis 15 %
Hartford Hammer Co.....dis 25 %
Magn'c Tack, Nos. 1,2,3, 1.26,1.50 and 1.75.dis25&10%
Warner & Noble's.....dis 5 %
Kip's or Selsor's.....dis 30 %
Yerkes & Plumb.....dis 15 %
Buffalo Hammer Co's—
Sledges.....dis 35 %
Mason and Spalling Hammers, &c.....dis 60&10 %

HANDLES.—Door or Thumb Latches.

| Nos | 0 | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|---|
| Per doz. | $0.80 | 1.00 | 1.18 | 1.35 | 1.50. | .....dis 55&10 % |

Roggin's Latches.....℔ doz 35c.@40c. net
Bronze Iron Drop Latches.....℔ doz $0.90@1.10
Jap'd Store Door Handles—Nuts, $1.25; Plate, ——;
no Plate, $1.10.....dis 10 %
Barn Door.....℔ doz $1.60, dis 10 %
Wrought Chest.....dis 65&10 %
Surface Chest.....dis 55&10 %
Flush Chest.....dis 55&10 %
Lifting.....dis 50&10 %
Saw and Plane.....dis 40&10 %
Lippincott Cross-Cut Saw.....20c. per pair
Hammer and Hatchet.....dis 20 %
Brad Awl.....℔ gross, $3.00, dis 20&10 %
Chisel, all kinds.....dis 50&10 %
Auger, assorted, ℔ gross.....$4.50
Auger, large, ℔ gross.....5.00
Patent Auger, Ives'.....dis 25 %
Patent Auger, Douglass'.....℔ set $1.25 net
Patent Auger, Swan's.....℔ set 1.00 net

HAMMOCK CHAIRS.

White Mountain, per doz.....$36.
" " Finished in red, per doz.....$42.0

HANGERS.

Cronk Hanger Co.—
No. 4, per doz. pair.....$12.00, 50&10 %
" 5, " " " .....14.40, 50&10 %
" 6, " " " .....18.00, 50&10 %
Iron clad track.....8 cents per foot, 50&10 %
Barn door stays.....$3.00 per doz., 50&10 %
Barn Door, old patterns.....dis 60&10 %
Barn Door, New England.....dis 60&10 %
Climax (Anti-Friction).....dis 50 %
Warner's.....dis 20 %
Richard's.....dis 20 %

HATCHETS.

Underhill's.....35 %
Haines' Soild Steel.....30 %
Shingling, Nos. 1 2 3.....℔ doz $7.25 $8.00 $8.75
Claw, Nos. 1 2 3.....℔ doz 7.75 8.50 9.25
Lathing, Nos. 1 2 3.....℔ doz 7.50 8.00 8.50
Hammond's new list.....dis 45 %
Blood's.....dis 35 %
Hunt's.....dis 30 %
Russel's, low list.....dis 40
Cobocs Bench Broad Adzes.....40

HAY KNIVES.

Gem.....℔ doz $13.50
"Lightning".....℔ doz $20.00 net 5 %
Wadsworth's.....dis 30 %

HINGES

Plate Hinges { 8,10&12 in.....5½c. ℔ lb.
"Providence" { over 12.....4½c. ℔ lb.
Screw Hook { 8, 10, 12 in.....3½c. ℔ lb.
and Strap. { 14 to 36 in.....2½c. ℔ lb
Crown spring hinges, for screen doors, dis 60 %; for for solid doors, single action, dis 45 %; for solid doors, double action, dis 55 %.
Crown Screen Door Latch.....℔ gross $12, dis 55 %
Crown Christmas-Tree Holders, 2-inch, ℔ doz $9; 3-inch, $12.....dis 45 %
Bickford Portable Pump.....each $6, dis 20 %
American Cake Mixer, No. 6.....each $3.50, dis 20 %
American Tobacco Cutter.....℔ doz $15, dis 30 %
A. M. Co. Clothes Wringer, No. 2 rolls,
10x1¾, ℔ doz $37.50; No. 2½ rolls,
12x1¾, $48.....dis 20 %
Heavy Welded Hook { 8@12 in. $7.50 ℔ 100 lb. } dis
{ 14 in. & up, $6 ℔ 100 lb. } 20 %
Screw Hook and Eye... { ⅝ & 1 in.....9c. } dis
{ ¾ in.....9c. } 20 %
{ ⅞ in.....10c. }
{ ½ in.....12c. }
Wrought Strap & T list, Dec. 20, '77.....dis 65%

HOES.

Planters.....60&10&5 %
Riveted Shank.....℔ doz $5.00, dis 60&10&5 %
Grub.....dis 50 %
Hick's Pat. Solid C. S. Planters'.....dis 60&10 %
Hick's Pat. Solid C. S. Scovill Pattern....dis 60&5 %
Hubbard, Bakewell & Co.....dis 60 %

HORSE NAILS.

| Ausable: | Nos. | 5 | 6 | 7 | 8 | 9 | 10 | |
|---|---|---|---|---|---|---|---|---|
| Plain, ℔ lb. | | 30c | 27c | 25c | 24c | 23c | 22c | ..dis 20&10 % |
| Finish'd ℔ lb. | | 31c | 28c | 26c | 25c | 24c | 23c | ..dis 20&10 % |
| Clint'n, P'n, " | | .... | 23c | 21c | 20c | 19c | 18c | ..dis 20&10 % |
| Clint'n, Fin'd " | | ... | 24c | 22c | 21c | 20c | 19c | ..dis 20&10 % |
| Essex, ℔ lb. | | ..... | 31c | 28c | 26c | 25c | 24c | 23c..dis.... 30 % |
| Putnam " | | ..... | 27c | 24c | 22c | 21c | 20c | 19c...dis 5&10 % |
| Saranac " | | ..... | 26c | 23c | 21c | 20c | 19c | 18c.....dis 20 % |
| Globe, " | | .. .. | 26c | 23c | 21c | 20c | 19c | 18c..dis 10&5 % |
| N'thw'n " | | ..... | 28c | 25c | 23c | 22c | 21c | 20c.dis 10&10 % |
| Champlain Forged ℔ lb. | | ... | 31c | 28c | 26c | 25c | 24c | 23c.dis 30&10 % |
| A. C., ℔ lb. | | ..... | 28 | 25 | 23 | 22 | 21 | 21.dis 10,10&5 % |
| C. B. K. | | ..... | 28c | 25c | 23c | 22c | 21c | 21c..dis 1c&5 % |
| Bridgewater | | ..... | 28c | 25c | 23c | 22c | 21c | 20c.....dis 30 % |
| New Haven | | ..... | 31c | 28c | 26c | 25c | 24c | 23c.dis 30&10 % |
| Capewell | | ..... | 31c | 26c | 26c | 25c | 24c | 23c.dis 20&10 % |

HORSE SHOES.

Burden.....℔ keg $3.85
R. I. Horse Shoe Co., Perkin's Improved,
Light, Medium and Heavy.....℔ keg $3.87½
Mule Shoes.....℔ keg $4.87½
Walker's—Forged: (Light, Medium and Heavy.)
Horse.....℔ keg $3.85
Mule.....℔ keg $4.85
Bryden Forg'd Heel & Toe Horse Shoes, $4.75 ℔ kg. } dis 5%
" " Plain " " " $4.75 " } dis 5%
" " } Frog } " " $5.00 " } dis 5%
" " } Pressure } dis 5%
" " Heel & Toe Mule " $5.75 " } dis 5%
Bryden Steel Mule Shoes, $6.75 ℔ keg.....dis 5 %
Diamond State Horse Shoes.....$3.85 ℔ keg
Diamond State Mule Shoes.....$4.85 ℔ keg
Phœnix Light, Medium and Heavy Horse
Shoes.....$3.87½ ℔ keg
Phœnix Mule Shoes.....$4.87½ ℔ keg
Ox Shoes—Mt. Carmel Ox Shoes.....10 cts. ℔ lb.

ICE CREAM FREEZERS.

Peerless—3 quart, $4.50; 4 quart, $5.50; 6 quart, $7. 8 quart, $9; 10 quart, $12. The Gooch Patent "Giant"—14 quart, $20; 18 quart, $25; 21 quart $30; 25 quart, $35; 32 quart, $40; 42 quart, $45. Discount 50&10 %.
American—2 quart, $2.75; 3 quart, $3.25; 4 quart, $3.75; 6 quart, $5 each.....dis 45 %
Crown, single action, 2 quart, $3.75; 3 quart, $4.50; 4 quart, $5.50; 6 quart, $7; 8 quart, $9; 10 quart, $11; 14 quart, $14.....dis 45 %
Crown, double action, with crank, 8 quart, $10.50; 10 quart, $13; 14 quart, $16.50; 18 quart, $21; 24 quart, $25. With fly wheel, 8 quart, $13; 10 quart, $16; 14 quart, $20; 18 quart, $25; 24 quart, $30; 32 quart $37.50.....dis 45 %
Star, double action, 2 quart, $3.75; 3 quart, $4.50; 4 quart, $5.50; 6 quart, $7; 8 quart, $9; 10 quart, $11; 14 quart, $14.....dis 45 %
Gem, double action, 2 quart, $3.75; 3 quart, $4.50; 4 quart, $5.50; 6 quart, $7; 8 quart, $9; 10 quart, $11; 14 quart, $14.....dis 55 %
Crown Ice Chipper.....℔ doz $7.50, dis 35 %

KNOBS.

Carriage, (Jap'd 80 c ℔ gross).....dis 60&10 %
Base—Common.....dis 30&10 %
Hemacite Door Knobs.....new list, dis 35&5 %


# HANIKA IRON FENCE CO.

Office 19 N. Market Street. **Springfield, Ohio.** Works, Southern Ave. on P. C. & St. L. R. R.

"HANIKA" Lawn Mower

*MADE OF MALLEABLE IRON and STEEL.*

Architectural Iron Work, Plain and Ornamental Iron Fencing, Mall. Iron Cresting, Window and Wrought Cellar Guards, etc.

**JAIL WORK A SPECIALTY.**

Mall. Iron Cresting.

☞ CONTRACTORS AND BUILDERS IN THE SOUTH it will pay you to write for our catalogues and price-lists. Correspondence solicited.

# THE FRED. J. MEYERS MFG. CO.

COVINGTON, KY., Manufacturers of

**WIRE GOODS OF ALL KINDS,**

Wrought-iron Fencing, Cresting and Hardware Specialties.

Send for Illustrated Catalogue and Price List.

Manufacturers of COVERT'S Celebrated Harness Snaps, Swivel Snaps, Open Eye Bit and Chain Snaps, Snap and Thimble for Horse and Cattle Ties; ROPE GOODS, consisting of Web and Rope, Halters, Rope Horse and Cattle Ties, Web Horse Ties, Halter Leads, Driving Reins, Weight Cords, Hammock Ropes, Hitching Cords, Lariat Tethers and Picket Pins.

Also, Leather Horse Ties, Etc. Breast Chains, Heel Chains, Chain Cow Ties, Halter Chains, Martingale Chains, Rein Chains, Post Chains, Butt Chains, Back or Cart Chains, Log Chains, Stake Chains, Trace Chains. Also, STUD, CABLE AND COIL CHAIN. CHAINS OF ALL KINDS MADE FROM SAMPLE OR DRAWING.

**PATENT ADJUSTABLE SOLDERING IRONS.**

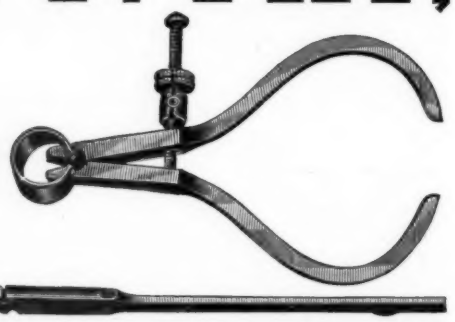
Send for Illustrated Catalogue and Price-List.

# CHAS. P. FAY,

—Manufacturer of—

**MACHINISTS'**

**Hardware Specialties**



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**Springfield, - Mass.**

**Our BELTING** is tanned on the surfaces only; the

**INTERIOR is RAW HIDE.**

Send for Our Valuable Book for Engineers and Belt Users. Free.

Agents in all Cities. Send for Trial Belt.

*Address SHULTZ BELTING CO., St. Louis, Mo.*

Door Mineral....
Door Por. Jap'd..
Door Por. Plated.
Door Por.....
} Same discounts as Door Locks.
Furniture Plain..... 75c gross inch, dis 10 %
Furniture, Wood Screws.....dis 20 %
Picture.....dis 50&10 %
Hemacite, Picture.....dis 35
Shutter, Porcelain.....dis 50&10 %

LADLES.

Melting & Skim'ng, Monroe's Pat. ₱ doz $4...dis 40
Melting, C & C.... dis [illegible]

LAWN MOWERS.

Acme Buckeye, Easy & Excelsior, new list..dis 40&10 %

LINES.

Linen Fish.....dis 25&10 %
Wire Clothes, Galvanized, 100 feet.....₱ doz $3.00

LOCKS AND LATCHES.

Cabinet, Eagle.....
Cabinet, Gaylord.....
Cabinet, Bridgeport.....
} Changes made in list price of some numbers Jan. 1, 1881, dis 25&2 %
Cabinet, P. & F. Corbin.....dis 40 %
Trunk, new list, Jan 1, 1881.....dis 15&2 %
Yale Lock Co., Flat Key.....dis 40 %
Plate.....dis 33⅓&2 %

DOOR LOCKS, ETC.

Bradford .....
Norwalk.....
Norwich.....
P. & F. Corbin.....
Russell & Erwin.....
Mallory, Wheeler & Co....
Nimick & Brittan Mfg. Co..
} List prices as revised Dec. 18th, 45%&2% for cash.
Padlocks—Russell & Erwin.....
Mallory, Wheeler & Co.....
Norwich Lock Manf. Co.....
Wm. Wilcox & Co.....
Nimick & Brittan Mfg. Co.....
} dis 70 % and 2% for cash.
Wm. Wilcox & Co's Plate Locks .....dis 33⅓ %
Yale Lock Manf. Co's "Standard".....dis 40 %
Romer's.....dis 25@40 %
Conestoga .....dis 80 & 10 %
Scandinavian, "Norwich".....dis 50&10 %
Nimick & Brittan's Burglar-Proof Locks....dis 50&2%

MALLETS.

Penfield Block Co., Apple, Hickory and Lignumvitæ.....dis 30 %

MEAT CUTTERS.

Dixon's (P. S. & W.) Nos. 1 2 3 4.
₱ doz $14 $17 $19 $30-dis 35 %
Perry's, Nos. 1 2 3 4 4 gr'd 5 gr'd
Each.....$3 4 5 11 13 36 dis
Woodruff's (P. S. & W.).....Nos. 100 150
₱ doz. $15 18-dis 35 %
Hales'.....Nos. 11 12 13
₱ doz. $27 35 45-dis 50&10&2 %
Kieser's No. 55.....$40 ₱ doz dis 40 %
Kieser's Gem.....$25 ₱ doz dis 40 %
Kieser's No. 82.....$40 ₱ doz dis 40 %
Kieser's Monarch.....$45 ₱ doz dis 40 %
Beef Shaver, (Enterprise Manf. Co.).....dis 25 %

MOLASSES GATES.

Stebbins Patterns.....dis 70&10 %
Stebbins Genuine .....dis 67½&10 %
Stebbins Tinned Ends.....dis 40&10 %
Chase's Hard Metal.....dis 50&10 %
Self-Measuring, (Enterprise).....dis 20 %
Lincoln's Pattern.....dis 60&10 %
Weed's.....dis 15 %
Boss Nos. 1 2 3 4
$7 $8 $9 10....₱ doz
Boss, Japanned Finish.....dis 60&10&10 %
Boss, Bronze Finish.....dis 50&10&10 %

NUTS AND WASHERS.

Square Nuts.....8 c off list.
Hexagon Nuts.....8½c off list.
Washers.....7½c off list.

OILERS.

Zinc and Tin.....dis 60&10 %
Brass and Copper.....dis 50 %
Malleable (Hammer's).....₱ doz $5, dis 10 %

PINKING IRONS.

Per dozen.....75 cts. net

PLAITING MACHINES.

Astor Plaiting Machine.....each $15, dis 20 %
Crown Plaiting Machines.....dis 25 %
6 in., $6; 10 in. $8 each.

PLANES AND PLANE IRONS.

Bench, First Quality.....dis 20 %
Bench, Second Quality.....dis 25 %
Molding.....dis 15 %
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879 dis 20&10 %
The Stanley (S. R. & L. Co.) new list, January 1879. .....dis 20&10 %
Bailey's .....dis 20&10 %
Plane Irons, Butcher's.....$5.50 to $7
Plane Irons, Auburn Tool Co.....dis 20 %
Plane Iron, Ohio Tool Co.....dis 20 %
Plane Irons, Sandusky Tool Co.....dis 20 %

PLIERS AND NIPPERS.

Button's Patent .....dis 33⅓ %
Hall's Pat. Compound Lever Cutting Nippers, No. 2, 5 in. $13.50; No. 4, 7 in., $21 ₱ doz..dis 25 %
Gas Pliers.....dis 50 %
Cronk's Patent Cutting Pliers:
8 inch $15.00; 10 inch $21.00.....dis 35%

PLUMBS AND LEVELS.

Disston's.....dis 40 %
Stanley R. & L. Co.'s Pat. Adjustable.dis 65&10&10 %
Stanley R. & L. Co.'s Non-Adjustable.dis 65&10&10 %
Chapin's Patent Adjustable.....dis 65&10&10 %
Chapin's Non-adjustable.....dis 65&10&10 %
Standard Rule Co.'s New Adjustable.....dis 65&10 %
Standard Rule Co.'s Non-Adjustable.....dis 65&10 %
Pocket Levels.....dis 65&10 %

RAIL.

Sliding Door, Wrought Brass.....₱ lb. 43c. dis 30 %
Sliding Door, Bronzed Wrt. Iron...₱ ft. 12c. dis. 35 %
Sliding Door, Iron, Painted.....₱ ft. 4c. dis 10&10 %
Barn Door....inch.....½ ⅝ ¾
Per 100 feet..$2.60 3.60 5.60-dis 10 %
B. D. for N. E. Hangers—
Small. Med. Large.
Per 100 feet.....$2.10 2.70 .30 net.

RIVETS.

Iron and Tinned, new list, Dec. 10, 1881.....dis 50 %
In bulk, new list, Dec. 10, 1881.....dis 45 %
Copper Rivets and Burrs.....dis 60&10 %
No. 7 8 9 10 11 12 13 14 15
₱ lb.. 49c. 50c. 52c. 54c. 56c. 58c. 60c. 65c. 70c.
RIVET SETS.....dis 40 %

RODS.

Stair, Brass.....dis 25 %
Stair, Black Walnut.....60c. ₱ doz.—net

RULES.

Boxwood. Ivory.
Chapin's.....
Standard.....
Stanley.....
} dis 80 % } dis 50&10 %
Stevens & Co.....dis 70&10%. Ivory.....dis 50 %
Stevens & Co. Miscellaneous.....dis 50&10 %

SAD IRONS.

Self-Heating, Charcoal.....₱ doz 9.00 net
Mrs. Pott's Irons.....dis 35 %
Enterprise Star Irons, new list, July 20, '82....dis 35 %
Comb'd Fluter and Sad Iron....₱ doz $15.00, dis 15 %
Common Sad Irons.....2½c ₱ lb

SAND PAPER.

Baeder & Adamson's Flint, 00@1½ ..$4.50 ₱ r'm.
Baeder & Adamson's Flint, 2, 2½&3..5.00 ₱ r'm.
Baeder & Adamson's Flint, Assort'd 4.75 ₱ r'm.
Baeder & Adamson's Star..... 3.75 ₱ r'm.
Baeder & Adamson's Emery ₱ r'm $6.50@11.50
} dis 20 %
Bartle's Sand, Flint and Emery Paper...dis 30&5 %

SASH LOCK.

Clancy's No. 100, per gross.....dis 20%
Nimick & Brittan Mfg. Co.....dis 50%

SASH CORD.

Common .....₱ lb, 14c. net
Patent.....₱ lb, 17c@18c. net
Silver Braided Lake Hemp.....₱ lb, 50c, dis 10 %
Silver Braid, Lake White Cotton, ₱ lb, 50c. dis 10 %
Silver Braided Lake Drab Cotton, ₱ lb. 55c. dis 10 %
Silver Lake Cable Laid, Bengall Unbleached Hemp, 17 cts.....dis 10 %
Russian Hemp, 19 cts.....dis 10 %
Russian Hemp, 24 cts.....dis 10 %
Samson Braided, white cotton.....dis 30 %
" " drab cotton.....dis 30 %

SASH WEIGHTS.

Solid Eyes, in 500-lb. lots and over, ₱ lb. 1¼c. net

SAUSAGE STUFFERS OR FILLERS.

Giles.....₱ doz. $20, dis 25&5 %
Enterprise Mfg. Co.....dis 30 %
Monarch.....dis 40 %

SAWS.

Boynton's Lightning Cross Cuts, new list....dis 40 %
Boynton's Circular and Mill.....dis 40 %
Boynton's Ice.....dis 25 %
Boynton's Lightning Hand, Panel and Rip...dis 25 %
Disston's Circular.....dis 40 %
Disston's Mill.....dis 40 %
Disston's Cross Cut.....dis 40 %
Disston's Hand, Panel, Rip, &c.....dis 20 %
Hubbard, Bakewell & Co. Circular Saws...dis 40&5 %
Hubbard, Bakewell & Co. Cross Cut.....30c. ft.
Hubbard, Bakewell & Co., One-Man's, X Cut dis 40&5 %
Hubbard, Bakewell & Co., Mill Saws.....dis 40&5 %
Peace Circular and Mill.....dis 40 %
Peace Hand, Panel and Rip.....dis 25 %
Peace Cross Cuts.....dis 35 %
Peace Band Saws, all widths.....dis 10 %
Webster Cross Cut, with handles,....dis 25&10&10 %
Griffin's Hack Saws and Blades.....dis 30 %

SAW FRAMES.

White.....₱ doz $1.05, dis 10 %
Saw Rods.....$10 list, dis 10&10 %

SAW SETS.

Stillman's Genuine, ₱ doz $3.50 and $5.50....dis 10 %
Stillman's Imitation.....₱ doz $3.25, dis 30&10 %
Common Lever.....₱ doz $2.00, dis 30&10 %
Leach's.....No. 0, $8.00; No. 1, $15; dis 15 %
Hammer, Hotchkiss.....$5.50, dis 10 %
Aiken's Genuine.....$13.00, dis 50&10 %
Aiken's Imitation.....$7.00, dis 50 %
Disston's.....dis 20 %
Morrill's.....No. 1, $15; No. 5, $52; dis 35&10 %

SCALES.

Hatch, Counter, No. 171....₱ doz $42, dis 37½&10 %
Hatch, Tea, No. 161.....₱ doz $15.00, dis 37½&10 %
Union Platform, Keystone.....$6, dis 45 %
Chicago Scale Co.....Special dis
Fairbanks'.....dis 20 %
Forsyth Scale Co.....dis 45 %
Howe's.....dis 20&10 %
Chatillon's Grocers'.....dis 40 %
Chatillon's Eureka.....dis 25 %
Family Universal.....dis 50 %
Family Favorite.....dis 30 %
Family Turnbull's.....dis 30 %
Scale Beams, List of Jan. 12, 1882.....dis 0 %

SCRAPERS.

Adjust. Box Scraper (S. R. & L Co.) $6.50, dis 20&10 %
Box, 1 Handle.....₱ doz $4, dis 10 %
Box, 2 Handle.....₱ doz $6, dis 10 %
Foot.....dis 45&10 %
Ship, common.....₱ doz $3, net
Wilson Mfg. Co.....dis 10 %

SCREW DRIVERS.

Douglas Mfg. Co.....dis 20&10 %
Disston's.....dis 40 %
Cowles Mfg. Co.....dis 50&10&10 %
Stanley Rule & Level Co's. Var. Hdls....dis 50&10 %
Stanley Rule & Level Co.'s Black Hdls...dis 40&10 %
Ratchet.....dis 33⅓ %
Clark's Patent.....dis 25 %
Shepardson.....dis 25 %

SCREWS.

Standard new list, Feb. 15.

Flat Head Bright.....75&10 %
Round Head Blued.....70&10 %
Flat Head Brass.....75 %
Round Head Brass.....70 %
Flat Head Blued (add 2½ % to net).....75&10 %
Brass and Silver Capped.....40 %
Japanned Flat Head.....70&10 %
Coach, Patent Gimlet Point.....dis 75 %
Coach, Common or Lag.....dis 60&10&10 %
Bed.....dis 10 %
Machine, Flat Head, Iron.....dis 55 %
Machine, Round Head, Iron.....dis 50 %
Bench, Iron.....dis 50&10 %
Bench, Wood, Beach.....₱ doz $3.00, dis 10 %
Bench, Wood, Hickory.....dis 20&10 %
Hand, Wood.....dis 20&10 %
Hand Rail, Sargent's.....dis 60&10 %
Hand Rail, Humason, Beckley & Co.'s...dis 40&10 %
Hand Rail, Am. Screw Co., list Jan. 1, '81....dis 70 %
Jack (Wilson's).....dis 25 %

SCREEN FRAMES AND FIXTURES.

Standard Window Screens No. 1, ₱ doz $4; 2, $5
" Door " No. 5, $15; dis 50&10 %
" Window Corner Irons, No. 3, doz. st's, $2
" Door " " No. 6, " " $3
dis 50&10 %
" Door Latches, ₱ dozen, $3.60.....dis 50 %
Porter's Patent Window and Door Screen Frames:

PER DOZ. SETS.

| | In White. | Im. Bl'k Walnut. | |
|---|---|---|---|
| No. 20 | $2.75 | $3.25 | dis 33⅓ % |
| No. 21 | 2.25 | 4.00 | |
| No. 22 | 5.50 | 6.75 | |
| No. 23 | 6.00 | 7.50 | |
| No. 30 | 9.00 | 11.00 | |

Porter's Corners—
No. 0. Corners and Sticks complete for a three-foot window, ₱ doz sets.....$4
No. 1. Set for Window, ₱ doz sets Bronzed, $2.40; Nickel, $5.62
No. 1½. " " ₱ doz sets, Bronzed, $3.25; Nickel, $7.50
No. 4. " " ₱ doz sets, Bronzed $4.00; Nickel, $8.00
No. ½. " " or door, ₱ doz sets, Bronzed, $1.20; Nickel, $3.00
No. 4½. " " or Door, ₱ doz sets, Bronzed, $2.00; Nickel, $4.00
No. 2½. " Door, ₱ doz sets, Bronzed, $6.75; Nickel, $15.00
No. 3. " " ₱ doz sets, Bronzed, $12.00; Nickel, $24.00
} dis 33⅓ %
Window screen frames (Stuart's).....dis 25 %

SHEARS AND SCISSORS.

American (Cast) Iron.....dis 70&10 %
Pruning.....see Pruning Hooks and Shears
Barnard's Lamp Trimmers.....₱ doz $4.00
Tinners'.....dis 15 %
Massachusetts.....dis 80&10 %
Seymour's.....dis 60&10 %
Jersey Shears.....dis 80 %
J. Wiss & Son, Nickle, 50&5 %; Japanned, 60&5 %


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☞ It both welds and refines at the same time.
☞ It never misses welding **when heated hot enough**.
☞ It does not waste away steel as does borax and other compounds.

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SHEAVES.

Sliding Door, M. W. & Co., List.....dis 45&2 %
Sliding Door, R. & E. list.....dis 60&10&2 %
Sliding Door, Patent Roller.....dis 60&10&2 %
Sliding Door, Pt. Roller, Hatfield's...dis 60&10&2 %
Sliding Door, Russell's Anti-Friction..dis 60&10&2 %
Also see Hangers.

SHOVELS AND SPADES.

Ames, New List, July 1, 188r.....dis 15 %
Griffiths.....dis 50&5 %
Remington's (Lowman's Patent).....dis 30 %
Rowland's.....dis 60 %
Kimballs.....dis 35 %
Lippincott, new list.....dis 20 %
Huwy, Bins & Co.....dis 15 %

SPOKE TRIMMERS.

Bonney's.....⅊ doz $10, dis 40&5 %
Stearns'.....⅊ doz $9, dis 20&10 %
Ives'... ....No. 1, $15; No. 2, $12 ⅊ doz, dis 55&10 %
Douglass'.....⅊ doz $9, dis 15 %

SILVER PLATED WARE.

Wm. Rogers Manf. Co.....dis 50, 5&5 %
Holmes, Booth & Hayden.....dis 40&10&5 %
Brown Bros.....dis 40&10&5 %
Wallace's Steel Silver Plated.....dis 33⅓&10 %
Rogers Bros 1847.....dis 50 %
C. Rogers & Bro.....dis 40, 10&5 %

SILVER PLATED HOLLOW WARE.

Wm. Rogers Manf. Co.....dis 40, 15&5 %
Meriden Brittania Co.....dis 33⅓ %

SOLDERING IRONS AND COPPERS.

Covert's Soldering Irons.....dis 35 %
Covert's Adjustable Coppers.....dis 35 %

SPOONS.

Britannia.....dis 60&10 %
Tinned, Iron, Table and Tea.....dis 65 %
Tinned Iron Basting.....dis 65 %
German Silver.....dis 40 %

STONE.

Hindostan No. 1, 5c.; Axe, 8c.....net
Sand Stone.....⅊ lb., 6c., dis 33⅓&10 %
Washita Stone.....No. 1, ⅊ lb., 16c. net.
Washita Stone, Slips.....No. 1, ⅊ lb., 45c. net.
Arkansas.....$1.50 ⅊ lb., net

SQUARES.

Steel....dis 60&10 %; full cases, dis 60&10&10 %
Iron.....dis 60&10 %; full cases, dis 60&10&10 %
Nickel Plated.....add $2.50&$4 ⅊ doz net.
} 2% cash.
Try Square and T Bevels.....dis 50&10 %
Disston's Try Square and T Bevels.....dis 40 %

TACKS, BRADS, &C.

[Less 10&2 % for cash if paid by 6th of month following sale.]

American Iron Carpet Tacks, all kinds.....65 %
Steel Carpet Tacks, all kinds.....60 %
Swedes Iron Carpet Tacks, all kinds.....60 %
Swedes Iron Tacks.....60 %
Swedes Iron Upholsterers' Tacks.....60 %
Tinned Swedes Iron Tacks.....60 %
Tinned Swedes Iron Upholsterers' Tacks.....60 %
American Iron Cut Tacks.....55 %
Gimp and Lace Tacks.....50 %
Tinned Gimp and Lace Tacks.....50 %
Copper Tacks.....50 %
Copper Finishing and Trunk Nails.....50 %
Cigar Box Nails.....50 %
Finishing Nails.....50 %
Trunk and Clout Nails.....50 %
Tinned Trunk and Clout Nails.....50 %
Basket Nails.....50 %
Chair Nails.....50 %
Zinc Glaciers' Points.....45 %
Common and Patent Brads.....45 %
Hungarian Nails and Miners' Tacks.....45 %
Tinned Capped Trunk Nails.....30 %
Looking Glass Tacks.....25 %
Picture Frame Points.....25 %
Leathered Carpet Tacks.....25 %
Brush Tacks.....25 %

TAP BORERS.

Common and Ring.....dis 20 %
Ives' Tap Borers.....dis 15&10 %
Enterprise Mfg. Co.....dis 25 %

TOBACCO CUTTERS.

Enterprise Mfg. Co (Champion).....dis 25 %
Wood Bottom.....⅊ doz $12.00, dis 40&5 %
All Iron.....⅊ doz $9.50, dis 40&5 %
Wilson's.....dis 35 %

THERMOMETERS.

Tin Case.....dis 75&10 %
Storm Glasses.....$3.25 ⅊ doz.

TOE CALKS.

Winsted.....⅊ lb 9c. dis 5 %

TRAPS.

Game, Newhouse.....dis 35 %
Game, Oneida Pattern.....dis 60&10&5 %
Game, Blake's Patent.....dis 40&10 %
Mouse, Wood, Choker.....⅊ doz holes, 16c
Mouse, Round Wire.....⅊ doz $1.50, dis 10 %
Mouse Cage, Wire.....⅊ doz $2.50, dis 10 %
Mouse, Catch-em-alive.....⅊ doz $2.50, dis 10 %
Cyclon Mouse.....⅊ doz 75 cts.
Ideal Mouse.....⅊ doz $1.00
Boss.....⅊ doz $9.50
Rat, "Decoy".....⅊ doz $10.00, dis 10 %
Delusion Mouse, per doz.....$1.50

TROWELS.

Lothrops' Brick and Plastering.....dis 25 %
Reed's Brick and Plastering.....dis 15 %
Disston's Brick and Plastering.....dis 20 %
Clement & Maynard's.....dis 20 %
Worrall's Brick.....dis 20 %
Brades & Walby's.....dis 20 %
Garden.....dis 55 %

TRUCKS (WAREHOUSE, &C.)

Handy Truck.....$2.50 net
Penfield Block Co.'s list, 1889.....dis 35 %
Peerless, with Cogs, No. 3.....5400
Peerless, with Cogs, No. 4.....66 00
Eureka, No. 2.....⅊ doz 42 00

VISES.

Cheney's Combined Vise and Anvil.....dis 50 %
Solid Box—Wilson's.....dis 50&10 %
" Trenton.....dis 45 %
" Iron City Tool Works.....dis 50 %
Manneer Drill Mfg. Co's—
Machinist's Vise.....$36.00 doz. dis. 50 %

Bench—Wilson's.....dis 45 %
" Trenton.....dis 25 %
" Parker's.....dis 20 %
" Prentiss.....dis 25 %
" Bonney's.....dis 35 %
Well Wheels.....dis 60&10&10 %
Stephen's Patent Vises.....

WIRE.

Brass and Copper, list of Jan. 17, 1884.....dis 30 %
Bright and Annealed.....Nos. 0@18, dis 50&10 %
Bright and Annealed.....Nos. 19@26, dis 60&10 %
Bright and Annealed.....Nos. 27@36, dis 70 %
Coppered.....Nos. 0@18, dis 50%
Galvanized, Nos 0 to 18.....Market list dis 40 %
Tinned, Nos. 0 to 18.....dis 60 %
Tinned Broom Wire, Nos. 18 to 25.....dis 60 %
Annealed Fence, Nos. 8&9.....dis 55 %
Annealed Grape, Nos. 10 to 14.....dis 50@10%
Fence Staples, Galvanized.....⅊ lb 5c
Japanned Barb Fence.....⅊ lb 4c
Galvanized Barbed Fence.....⅊ lb 5c
Buck Thorn Galvanized.....⅊ lb 5½ c
Picture Wire.....dis 60 %
Clothes Line Wire, Galvanized.....$2.75 ⅊ doz
Wire Cloth, gree , drab and black.....⅊ sq ft 8c net

WRENCHES.

American Adjustable.....dis 45 %
Baxter's Adjustable "S," list Jan., 1880...dis 20&5 %
Baxter's Diagonal.....dis 20&5 %
Coes' Genuine.....dis 60 %
Coes' "Mechanics".....dis 60&10 %
Coes' Pattern, Malleable.....dis 75 %
Coes' Pattern, Wrought.....dis 60&10 %
Girard Standard.....dis 50&10 %
Girard Agl.....dis 60&10 %
Always Ready.....$9.00—25 %

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| | Per doz. | |
|---|---|---|
| Universal, XX, No. 2½ | 30.00 | dis 10 % |
| Universal, XX, No. 2 | 39.00 | |
| Universal, XX, No. 1½ | 48.00 | |
| Universal, XX, No. 1 | 63.00 | |
| Universal, XX, No. 8 | each 10.75 | |
| Universal, XX, No. 12 | each 20.25 | |
| Universal, XX, No. 18 | each 22.75 | |
| Universal, XX, No. 22 | each 30.25 | |
| Peerless, no Cogs, No. 1 | 42.00 | |
| Peerless, with Cogs, No. 2½ | 45.00 | |
| Peerless, with Cogs, No. 2 | 48.00 | |

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Rotary Knife Potato Parer.....$18.00 ⅊ doz., net
Metallic Shingles.....$5.50 and $6.50 per square.
Hopper Cherry Seeders.....$5.00 ⅊ doz. net


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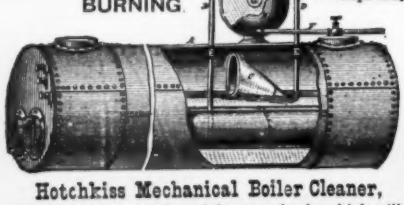
And Prevent SCALING, FOAMING, BURNING. Price $75.00. Removes Lime Oil, Magnesia, without use of Compounds.



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20 in. S. x 8, 10 & 14 ft. Engine Lathes, Harris & Ames
24 in. S. x 14 & 20 ft. Engine Lathes, Ames.
25 in. S. 10 ft. Engine Lathes.
26 in. S. x 16 ft. Engine Lathes, Perkins.
41 in. S. x 18 ft. Engine Lathes, Putnam.
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20 in. x 20 in. x 6 ft. Planer, Pratt & Whitney.
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22 in. x 22 in. x 5 ft. Planer, Ames.
24 in. x 24 in. x 4 ft. Planer, Ferris & Miles.
24 in. x 24 in. x 6 ft. Planer, Powell.
24 in. x 27 in. x 7 ft. Planer, Ames.
26 in. x 26 in. x 6 ft. Planer, Powell.
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Plain Miller, Lincoln Pattern.
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No. 5 Miller, Brainerd.
2½ in. Cutting-off Machine, Pratt & Whitney.
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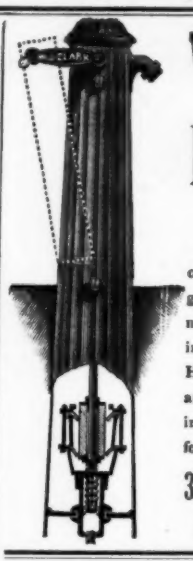

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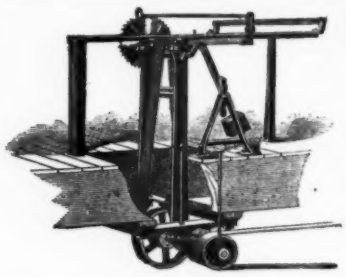

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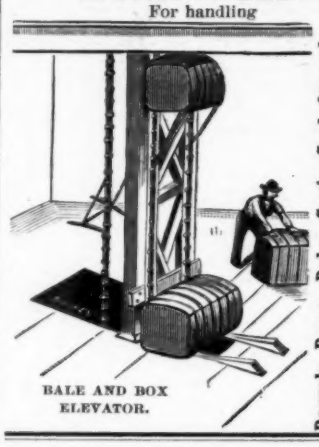

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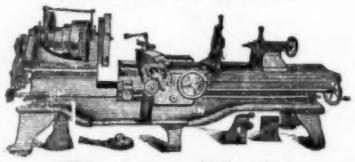

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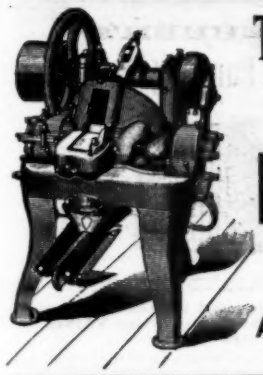

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## Improved Cut Nail Machines,

*AUTOMATIC NAIL SELECTORS and NAIL FACTORY SUPPLIES,*

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Prices and particulars furnished on application.

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## Patented Two-Color Packing Box and Advertising Sign

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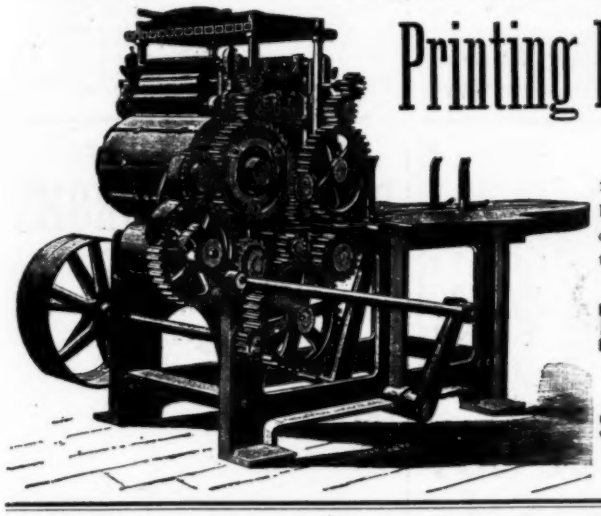

Feeds automatically from 1,500 to 1,800 per hour, and prints both colors in perfect register at one operation.

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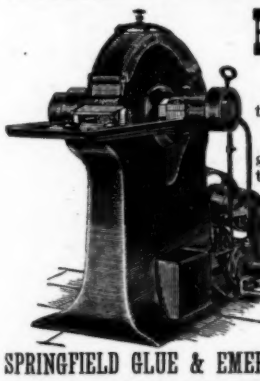

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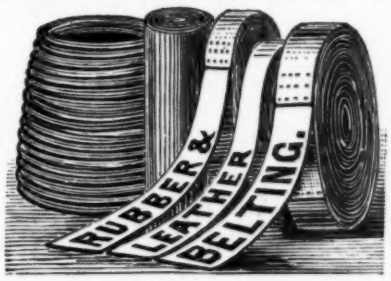


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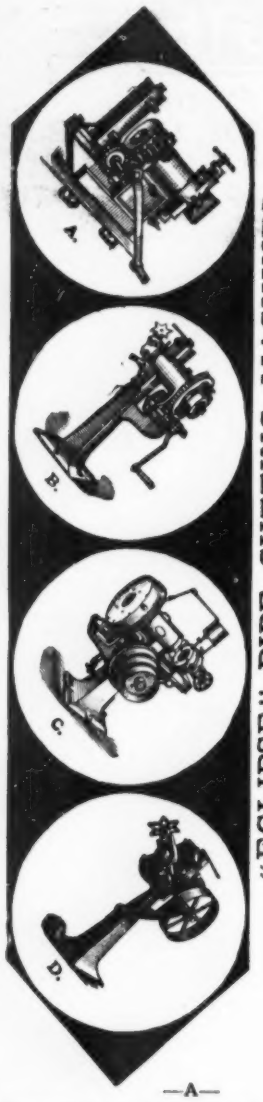


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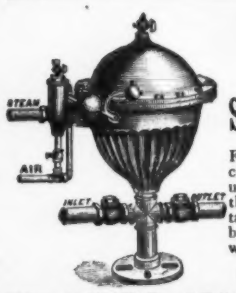


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For returning steam condensed under pressure automatically into the boiler, whether taken from above or below the boiler level, without loss or waste.

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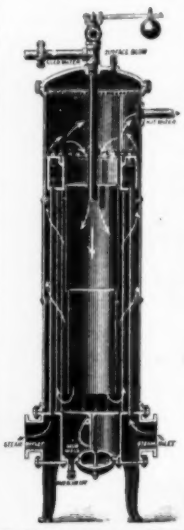

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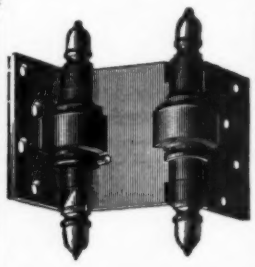

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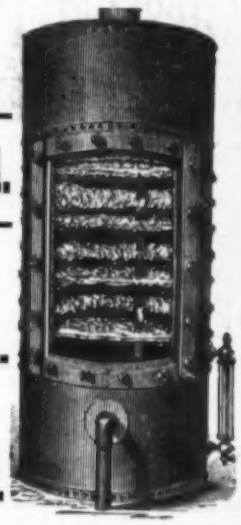

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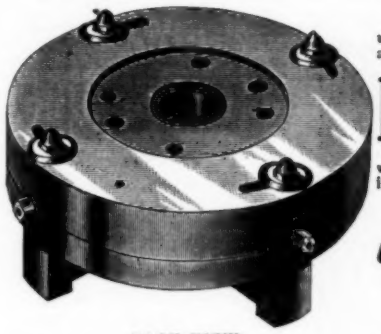


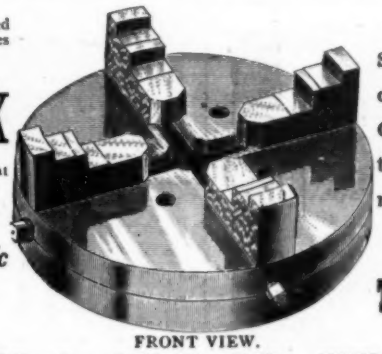
BACK VIEW.

This Chuck is constructed upon the same general principles as the well-known

**Horton Chuck**

with the additional feature that it can be used either as an

*Independent, Universal Concentric or Eccentric.*



FRONT VIEW.

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TRADE MARK:

**The Horton Lathe Chuck.**

VIEW OF WORKING PARTS.

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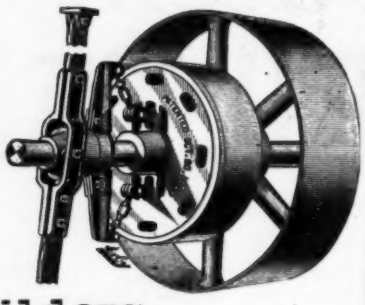

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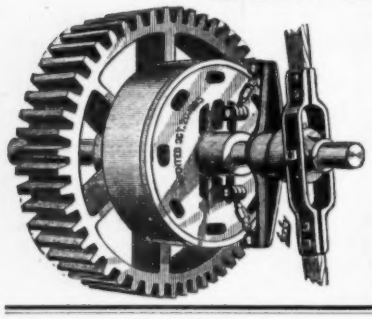

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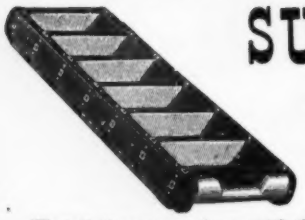

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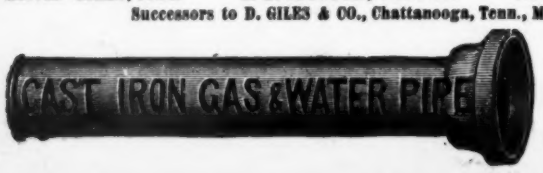


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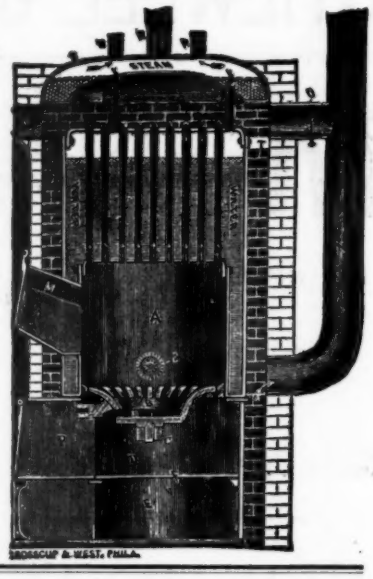


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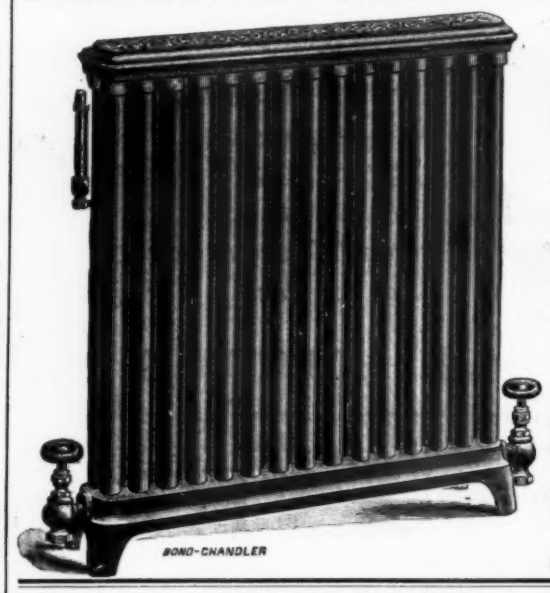


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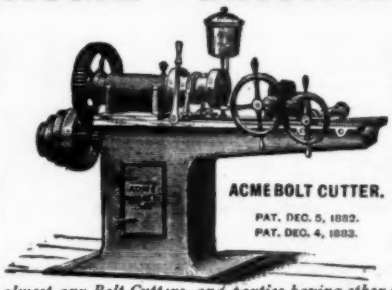


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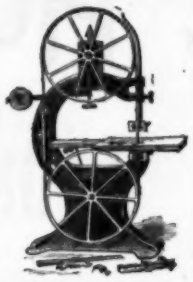

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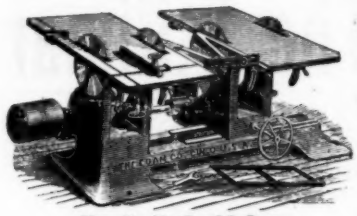

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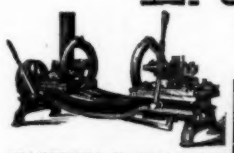

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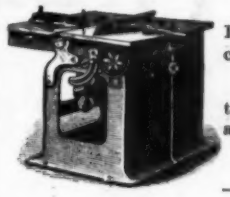

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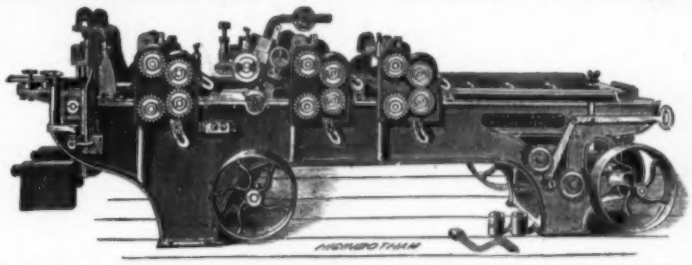

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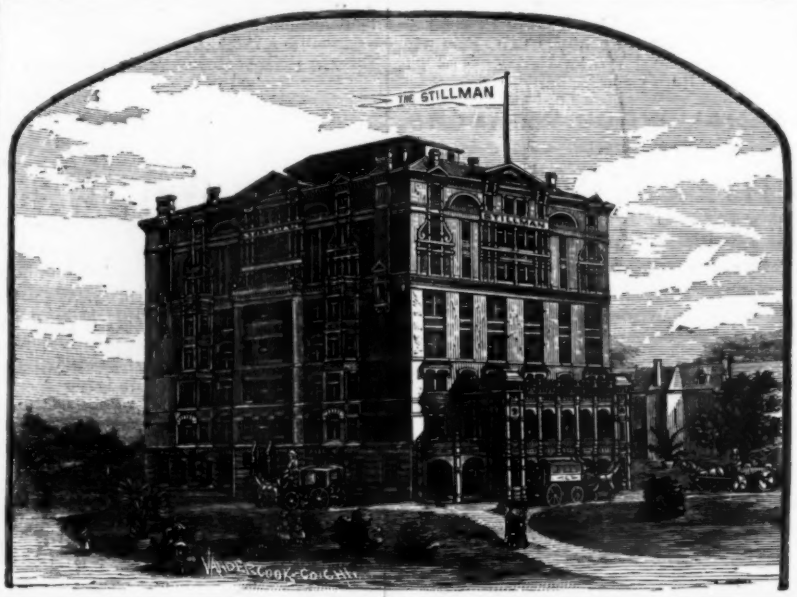


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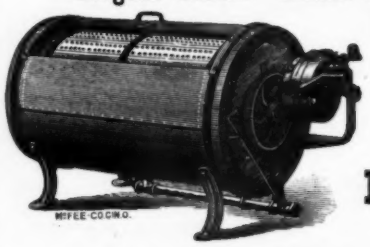


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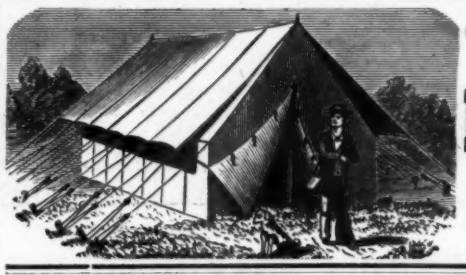

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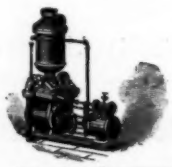

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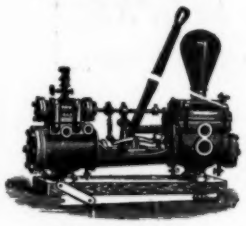

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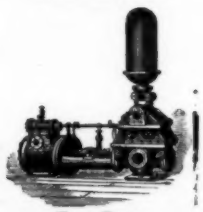

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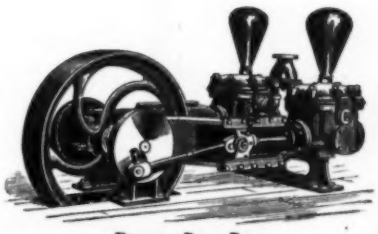

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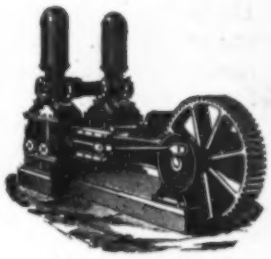

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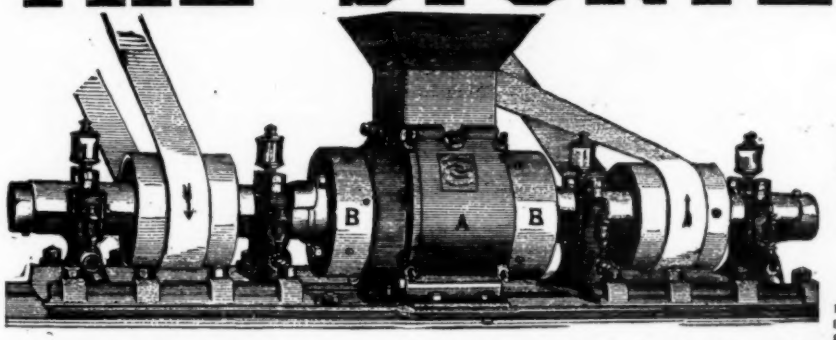

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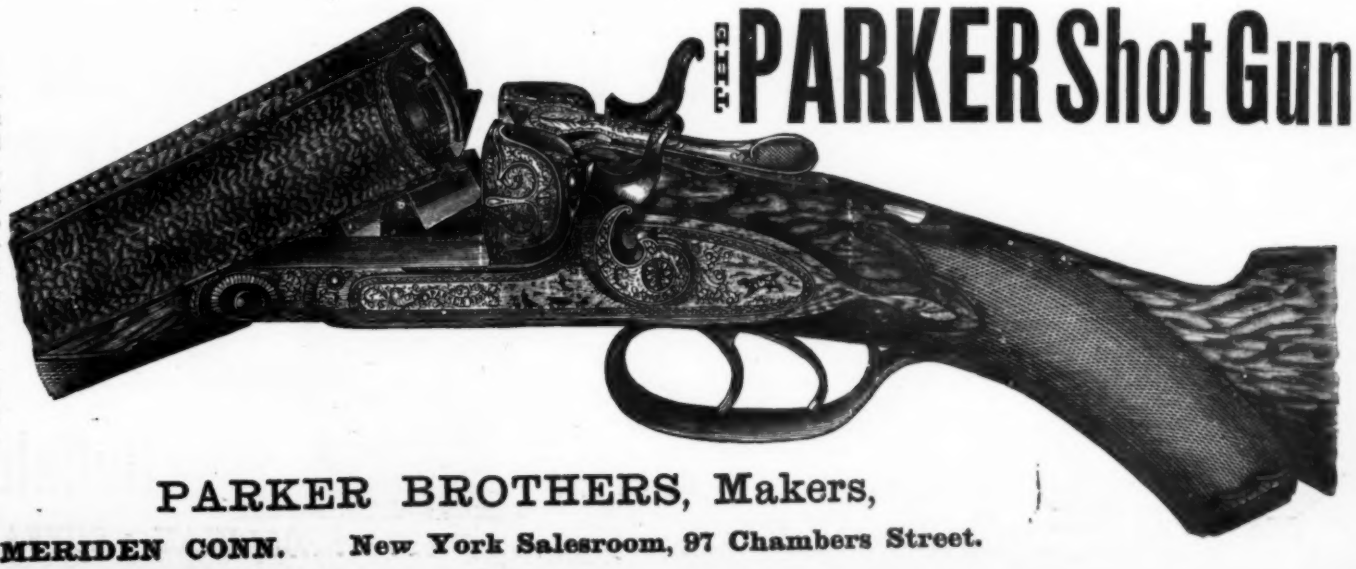

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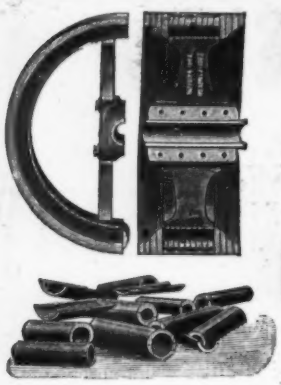

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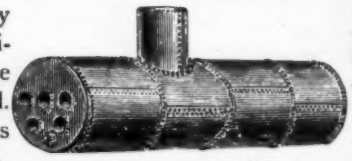

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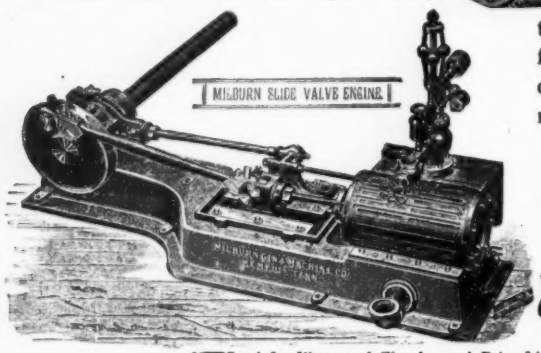


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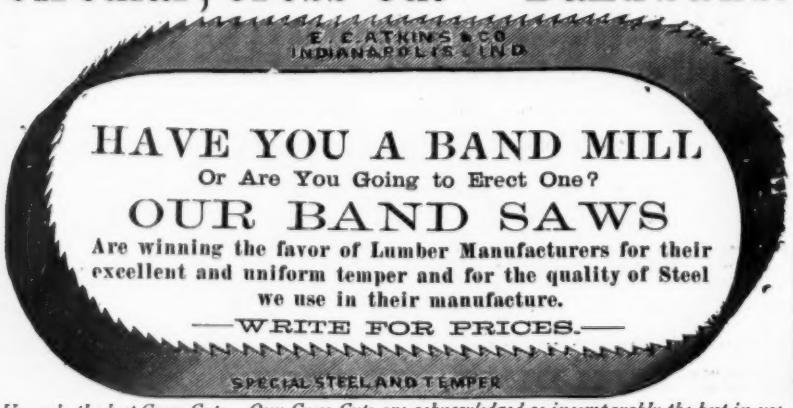


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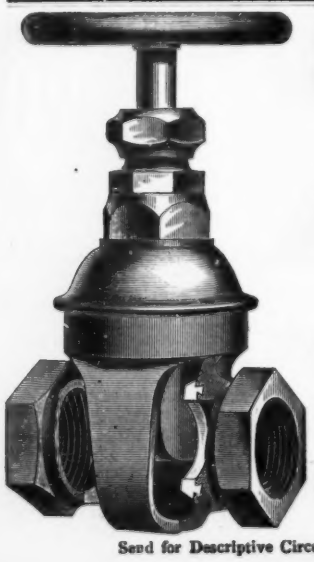

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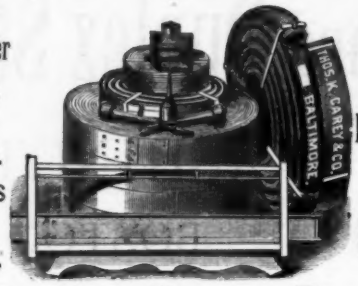


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Dear Sirs:—We are in receipt of your letter of October 22, in which you state that a competitor has sold a customer a Roofing Plate, representing to him that the same was made at our works, and that it was identically the same as the "Camaret" Roofing, the only difference being in the branding of the boxes.

We know that it is unnecessary for us to inform you how untrue all such statements are, but we desire the consumers in the States to know that no credit should be given to such statements, *as we make only the "Camaret" Roofing Plate for your house, you having our entire make of this Plate, as well as the control of same in America.*

Further, we will state that we have not *made nor sold* a box of "Camaret" Roofing Plate to any house in England or America except yourselves since we gave you over a year ago control of same; and under no circumstances would we manufacture this Plate for anyone *under any other brand.*

We trust this letter will have the desired effect of putting an effectual stop to all such misrepresentations in reference to our brand.

Yours truly,

(Signed) JOS. WILLIAMS & CO., Ltd.,

**Per J. H. RITSON, General Manager.**

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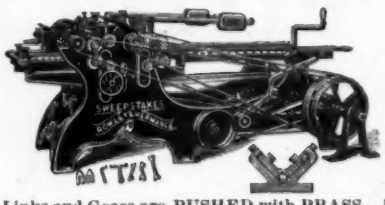

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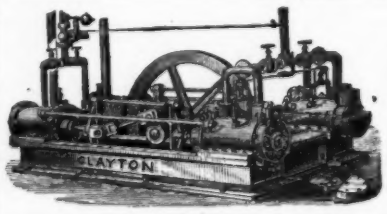


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